

85 90 95  
 Ser Thr Cys Pro Arg Trp Arg Thr Asp Val Ser Pro Ala Asp Thr Ile  
 100 105 110  
 Ala Pro Arg Ser Trp Leu Leu Pro Leu Ser Ala Thr  
 115 120

<210> 6109  
 <211> 2087  
 <212> DNA  
 <213> Homo sapiens

<400> 6109  
 aggccggaag cgcgcggaaga ccatgtagtg agaccctcgc gaggtctgag agtcactgga  
 60  
 gctaccagaa gcatcatggg gccctgggga gagccagagc tcctggtgtg gcgccccgag  
 120  
 ggtagcttca gagcctccag tgcctgtggg gctggagggtg aagttggggg ccctgggtgtc  
 180  
 gctgtgtgtc tcaccctcct ctgcagcctg gtgcccactc gtgtgtgtgc cgggccagga  
 240  
 gctaaccatg aaggtctcagc tccccgccag aaagccctga gcctagtaag ctgtttcgcg  
 300  
 gggggcgctc ttttggccac ttgtctcctg gacctgtgc ctgactacct ggctgccata  
 360  
 gatgaggccc tggcagcctt gcacgtgacg ctccagttcc cactgcaaga gttcatcctg  
 420  
 gccatgggct tcttcctggg cctgggtgatg gagcagatca cactggctta caaggagcag  
 480  
 tcaggggcct cacctctgga ggaaacaagg gctctgtctg gaacagtga tggggggcgg  
 540  
 cagcattggc atgatgggccc aggggtccca caggcgagtg gagccccagc aacccccca  
 600  
 gccttgctg cctgtgtact ggtgttctcc ctggccctcc actccgtgtt cgaggggctg  
 660  
 gcggtagggc tgcagcgaga ccgggctcgg gccatggagc tgtgcctggc ttgtgtgtc  
 720  
 cacaagggca tcctggctgt cagcctgtcc ctgcggctgt tgcaagacca ccttagggca  
 780  
 cagggtgggtg ctggctgtgg gatcctcttc tcatgcatga cacctctagg catcgggctg  
 840  
 ggtgcagctc tggcagagtc ggcaggacct ctgcaccagc tggcccagtc tgtgctagag  
 900  
 ggcatggcag ctggcacctt tctctatata acctttctgg aaatcctgcc ccaggagctg  
 960  
 gccagtctg agcaaaggat cctcaaggtc attctgtctc tagcaggctt tgccctgtc  
 1020  
 actggcctgc tcttcatcca aatctagggg gcttcaagag aggggcaggg gagattgatg  
 1080  
 atcaggtgcc cctgttctcc cttccctccc ccagttgttg ggaataggaa ggaaagggga  
 1140  
 agggaaatac tgaggaccaa aaagtctctt gggagctaaa gatagagcct ttggggctat  
 1200  
 ctgactaatg agagggaagt gggcagacaa gaggctggcc ccagtcacca ggaacaagag  
 1260

atgggtcaagt cgctagagac atatcagggg acattaggat tggggaagac acttgactgc  
 1320  
 tagaatcaga ggttgacac tatacataag gacaggctca catgggaggc tggagggtggg  
 1380  
 taccagctg ctgtggaacg ggtatggaga ggtcataaac cttagtcag tgtcctgttg  
 1440  
 gtcctagccc atttcagcac cctgccactt ggagtggacc ctcctactc ttcttagcgc  
 1500  
 ctacctcat acctatctcc ctctcccat ctctagggg actggcgcca aatggtctct  
 1560  
 ccctgccaat ttgtgtatct tctctggcct ctccagtcct gcttactcct ctatttttaa  
 1620  
 agtgccaaac aaatcccctt cctctttctc aaagcacagt aatgtggcac tgagccctac  
 1680  
 ccagcacctc agtgaagggg gcctgcttgc tctttatttt ggtcccggat cctgggggtgg  
 1740  
 ggcagaaata ttttctgggc tggggttagga ggaaggttgt tgcagccatc tactgtctgt  
 1800  
 gtaccctagg aatatgggga catggacatg gtgtcccatg cccagatgat aaacttgag  
 1860  
 ctgccccaaac atttttttaa atacaccga ggagcccaag ggggaagggc aatgcctacc  
 1920  
 ccagcggtta ttttgggga gggagggctg tgcataggga catattcttt agaactctatt  
 1980  
 ttattaactg acctgttttg ggacctgtta cccaaataaa agatgtttct agacatctgt  
 2040  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaa  
 2087

<210> 6110  
 <211> 323  
 <212> PRT  
 <213> Homo sapiens

<400> 6110  
 Met Gly Pro Trp Gly Glu Pro Glu Leu Leu Val Trp Arg Pro Glu Gly  
 1 5 10 15  
 Ser Phe Arg Ala Ser Ser Ala Cys Gly Ala Gly Gly Glu Val Gly Gly  
 20 25 30  
 Pro Gly Ala Ala Ala Gly Leu Thr Leu Leu Cys Ser Leu Val Pro Ile  
 35 40 45  
 Cys Val Leu Arg Arg Pro Gly Ala Asn His Glu Gly Ser Ala Ser Arg  
 50 55 60  
 Gln Lys Ala Leu Ser Leu Val Ser Cys Phe Ala Gly Gly Val Phe Leu  
 65 70 75 80  
 Ala Thr Cys Leu Leu Asp Leu Leu Pro Asp Tyr Leu Ala Ala Ile Asp  
 85 90 95  
 Glu Ala Leu Ala Ala Leu His Val Thr Leu Gln Phe Pro Leu Gln Glu  
 100 105 110  
 Phe Ile Leu Ala Met Gly Phe Phe Leu Val Leu Val Met Glu Gln Ile  
 115 120 125  
 Thr Leu Ala Tyr Lys Glu Gln Ser Gly Pro Ser Pro Leu Glu Glu Thr  
 130 135 140  
 Arg Ala Leu Leu Gly Thr Val Asn Gly Gly Pro Gln His Trp His Asp

```

145          150          155          160
Gly Pro Gly Val Pro Gln Ala Ser Gly Ala Pro Ala Thr Pro Ser Ala
          165          170          175
Leu Arg Ala Cys Val Leu Val Phe Ser Leu Ala Leu His Ser Val Phe
          180          185          190
Glu Gly Leu Ala Val Gly Leu Gln Arg Asp Arg Ala Arg Ala Met Glu
          195          200          205
Leu Cys Leu Ala Leu Leu Leu His Lys Gly Ile Leu Ala Val Ser Leu
          210          215          220
Ser Leu Arg Leu Leu Gln Ser His Leu Arg Ala Gln Val Val Ala Gly
225          230          235          240
Cys Gly Ile Leu Phe Ser Cys Met Thr Pro Leu Gly Ile Gly Leu Gly
          245          250          255
Ala Ala Leu Ala Glu Ser Ala Gly Pro Leu His Gln Leu Ala Gln Ser
          260          265          270
Val Leu Glu Gly Met Ala Ala Gly Thr Phe Leu Tyr Ile Thr Phe Leu
          275          280          285
Glu Ile Leu Pro Gln Glu Leu Ala Ser Ser Glu Gln Arg Ile Leu Lys
          290          295          300
Val Ile Leu Leu Leu Ala Gly Phe Ala Leu Leu Thr Gly Leu Leu Phe
305          310          315          320
Ile Gln Ile

```

<210> 6111  
 <211> 1706  
 <212> DNA  
 <213> Homo sapiens

```

<400> 6111
nnagatctgc ctgcctctct gccccaaag tgggtgggatt acaggtgtga gccactgctc
60
ccagccaaga aattctttat atgtagatac tattttcttg tcaagttcag atgttgga
120
taacttgcca ttgttcatt cttgtctttg ttgttttca tataatagaa atcccccaa
180
tgttttatat cttttatgtc tttattttgt ttgttttgt ttttgagatg gagtttcct
240
cttggtgccc aggtggagt gnagtggcac agtctcggct cactgcaacc tccacttcct
300
gggttcaagc agttctcgtg ccgcagctc ccaagtagct gggactacag gcatgcgcca
360
ccacgccagg ctaatttttg tatttttagt agagatgggg ttccaccatg ttggccgggc
420
tgggtctcaa ctcctgacct caggcgatcc acccacctca gcgtcccaa gtgctgggat
480
tataggcgtg agccaccgca cctggcctat gagggtctt ttaattagga acaaatctaa
540
tggaaggag agttgactga agttggccca caggattgtg agctgggcag tgccttcacg
600
aaggcttgcc acctgggac gcccagttt actgggtgt ctgctggagt gcagaaggct
660
ttctggcagc tgcctgggtt tggccagacc ctgctctccc tcccgcgggc caaccctag
720

```

tcccccttcct gtctccactt gcattcaggg gtggctgctg ttctgagaac attagaactg  
 780  
 ggaagagaga tggagtcaca tggatttttg gtgggcatta ttctgaactt tcgtatccaa  
 840  
 gttagtcccc cttattccac tgtggcattg ccgttctaag cagttacctg atgcctgctg  
 900  
 ctgaagagct gctcacagga ggcggcggcg gccctggcac tgcctctgc attaggtctt  
 960  
 gtgtttgatg tgttcttggt aatttacttt gtcagaacaa aatatttacg cgttgggttc  
 1020  
 aggaatttct tttagctccc catctggctg tgaaattcag gaaacctccc gttgcctagt  
 1080  
 aatcacccca tgtaggtgta cattgtgaca aagtgcactt gaccactaag gggccccctt  
 1140  
 ggtgacccca gcacattcac agcagtgtta aaatggcctg cattttggag atgctggctg  
 1200  
 gcctttcagt gcctcccagg aagacacatg gcctttccct cttcagatgc ctgaagggag  
 1260  
 tgctttgagg caggtgatgt gctgggagtg tgggcggcct ccctctggcc ccggggccct  
 1320  
 ctgtggacct tggctccctc cgtggacctg ggcttcgttg tgagcactgc agcctccctg  
 1380  
 ggcatccct ccagcgccag caccactgca acatatagac ctgagtgcta ttgtattttg  
 1440  
 gcttggtgtg tatgtcttc attgtgtaaa attgctgttc ttttgacaat ttaagtgtt  
 1500  
 gttttgttta ctgtaagttt gaaaataaaa atgaagaaaa aaaattccaa tgactgtgt  
 1560  
 gtggttgagg actttattta ccaagatgtt tactcttctt tcccccttc attttgagga  
 1620  
 gctgtgtcac tcctcctccc cccagtgct ttgtagtctc tcctatgtca taataaagct  
 1680  
 acattttctc tgaaaaaaaa aaaaaa  
 1706

<210> 6112  
 <211> 110  
 <212> PRT  
 <213> Homo sapiens

<400> 6112  
 Met Ser Leu Phe Cys Phe Val Leu Phe Leu Arg Trp Ser Phe Pro Leu  
 1 5 10 15  
 Val Ala Gln Ala Gly Val Xaa Trp His Ser Leu Gly Ser Leu Gln Pro  
 20 25 30  
 Pro Leu Pro Gly Phe Lys Gln Phe Ser Cys Arg Ser Leu Pro Ser Ser  
 35 40 45  
 Trp Asp Tyr Arg His Ala Pro Pro Arg Gln Ala Asn Phe Cys Ile Phe  
 50 55 60  
 Ser Arg Asp Gly Val Ser Pro Cys Trp Pro Gly Trp Ser Gln Thr Pro  
 65 70 75 80  
 Asp Leu Arg Arg Ser Thr His Leu Ser Val Pro Lys Cys Trp Asp Tyr  
 85 90 95  
 Arg Arg Glu Pro Pro His Leu Ala Tyr Glu Trp Ser Phe Asn

100 105 110

<210> 6113  
<211> 1095  
<212> DNA  
<213> Homo sapiens

<400> 6113  
nnccggccgcc aagcgatccc tgctccgcgc gacactgcgt gcccgcgcac gcagagaggc  
60  
ggtgacgcac ttacggcgg cagcgtaagt gcgtgacgct cgtcagtggc ttcagttcac  
120  
acgtggcgcc agcggaggca ggttgatgtg tttgtgcttc cttctacagc caatatgaaa  
180  
aggcctagta agtggggctg ggaggcgggc gtggaggggac ccacgtctgg aagttgctgc  
240  
agccaccacg acgctcttct acggctacgg ctttgtctct gctgggatgg gggggggagc  
300  
atacgcgtag gccttgcccc tatttcctgg tagaaccgag agttggaagt ccctacggcg  
360  
atcatgttaa ccgcgcgggc tcattctgcg gaacgaagcc gggcagaggg tggggaagac  
420  
taggctagat ttctgaagg aagcagcgtc tgagccaggt ttgaggccca atattttctt  
480  
tccgtggcca cgtgcagact ggcccagggt agagctgaga atcgctccc agactcagtg  
540  
ttcctctctt gccttatgat tcgtgctgtt tgacacgaag tggttgtcgt tttgtgtctc  
600  
atacgtgttt gtgtatgac ccatttcta atgtgtgagg taagtgcagg gaattttgac  
660  
tccattctgg atctactgaa ttttaatttc tgggatttga aagtagcacg tatgtttgca  
720  
ttaggcattt cgcattagac ttaacgttag gtttggtagc caataacaca agaaaaggat  
780  
ataactccat agtgcgttaa cccagaacta atcatttggg ttaacagatt tgtgatgtgt  
840  
ttctttgtag agttaagaa agcaagtaaa cgcacgacct gccataagcg gtataaaatc  
900  
caaaaaaagg ttcgagaaca tcatcgaaaa ttaagaaaagg aggctaaaaa gcgggggtcac  
960  
aagaagccta ggaaagacc aggagttcca aacagtgtc cctttaagga ggctcttctt  
1020  
gaggaagctg agctaaggaa acagaggctt gaagaactaa aacagcagca gaaacttgac  
1080  
aggcagaagg aacta  
1095

<210> 6114  
<211> 87  
<212> PRT  
<213> Homo sapiens

<400> 6114  
Met Cys Phe Phe Val Glu Leu Lys Lys Ala Ser Lys Arg Met Thr Cys

```

      1           5           10           15
His Lys Arg Tyr Lys Ile Gln Lys Lys Val Arg Glu His His Arg Lys
      20           25           30
Leu Arg Lys Glu Ala Lys Lys Arg Gly His Lys Lys Pro Arg Lys Asp
      35           40           45
Pro Gly Val Pro Asn Ser Ala Pro Phe Lys Glu Ala Leu Leu Glu Glu
      50           55           60
Ala Glu Leu Arg Lys Gln Arg Leu Glu Glu Leu Lys Gln Gln Gln Lys
      65           70           75           80
Leu Asp Arg Gln Lys Glu Leu
      85

```

<210> 6115  
 <211> 411  
 <212> DNA  
 <213> Homo sapiens

```

<400> 6115
gcgcgcctgg ccccgccagg gcctaagttc cctgcactcg cttcccgcc tgctgcgcgc
60
gcgcgcgcgc gcagccctcc ttctcgtggg cgctggggaa gaaactcgtc ggcgggtcta
120
actgtggcgt cccagggcgg tggagggagc aacttcgggg gcacgtcctc gtaaatcccg
180
tggaggacac tgaccctgta cccaccctc gaggccagaa gtcgggttcct ttgggggaac
240
tgaggggcga gagcactcgc cccctgact tgcaaagttg gcgtctttac ttggcctccg
300
ggattctgcy catggcgtgt ctccaggctg ctgatgggca agacagatgt gccaggtcca
360
gaatgaactt gagaagagtt ttagccatt cctgaatcac cttatactag t
411

```

<210> 6116  
 <211> 129  
 <212> PRT  
 <213> Homo sapiens

```

<400> 6116
Met Ala Thr Asn Ser Ser Gln Val His Ser Gly Pro Gly Thr Ser Val
      1           5           10           15
Leu Pro Ile Ser Ser Leu Glu Thr Arg His Ala Gln Asn Pro Gly Gly
      20           25           30
Gln Val Lys Thr Pro Thr Leu Gln Val Arg Gly Ala Ser Ala Leu Ala
      35           40           45
Pro Gln Phe Pro Gln Arg Asn Arg Leu Leu Ala Ser Arg Val Gly Tyr
      50           55           60
Arg Val Ser Val Leu His Gly Ile Tyr Glu Asp Val Pro Pro Lys Leu
      65           70           75           80
Leu Pro Pro Pro Pro Trp Asp Ala Thr Val Arg Pro Ala Asp Glu Phe
      85           90           95
Leu Pro Gln Arg Pro Arg Glu Gly Gly Leu Arg Ala Ala Ala Ala Ala
      100          105          110
Thr Gly Gly Glu Ala Ser Ala Gly Asn Leu Gly Pro Gly Gly Ala Arg

```

115                      120                      125  
 Arg  
  
 <210> 6117  
 <211> 962  
 <212> DNA  
 <213> Homo sapiens  
  
 <400> 6117  
 cttccgcctt cccaagcca acgtctccgc cgtcggctcc gcggcgccgc catggccgac  
 60  
 gtggaagacg gagaggaaac ctgcgccctg gcctctcact cggggagctc aggctccaag  
 120  
 tcgggaggcg acaagatggt cttccctcaag aagtggaaac cggtggccat gtggagctgg  
 180  
 gacgtggagt gcgatacgtg cggcatctgc aggtgccagg tgatggatgc ctgtcttaga  
 240  
 tgtcaagctg aaaacaaaca agaggactgt gttgtggtct ggggagaatg taatcattcc  
 300  
 ttccacaact gctgcatgtc cctgtgggtg aaacagaaca atcgctgccc tctctgccag  
 360  
 caggactggg tgggccaaag aatcggcaaa tgagagtggg tagaaggctt cttagcgcag  
 420  
 ttgttcagag ccctgtgga tcttgaatc cagtgcccta caaaggctag aacactacag  
 480  
 gggatgaatt cttcaaatag gagccgatgg atctgtggtc ctttgggact catcaaagcc  
 540  
 ttggttttagc attttgtcag ttttatcttc agaaattctc tgcgattaag aagataattt  
 600  
 attaaagggt gtccttccta cctctgtggt gtgtgtcgcg cacacagctt agaagtgcta  
 660  
 taaaaaagga aagagctcca aattgaatca cctttataat ttacccattt ctatacaaca  
 720  
 ggcagtgga gacgtttcag agaacttttt gcatgcttat gggtgatcag ttaaaaaaga  
 780  
 atgttacagt aacaaataaa gtgcagttta aaaccaact cttactctta atttgttcct  
 840  
 aatacgtatt tttggcaggg agagggaacg gtccatgaaa tctttatgtg atataaggat  
 900  
 ttttaagtttg ggccagtga cagggtaaat aaaatttaac ttttgagcat aaaaaaaaaa  
 960  
 aa  
 962  
  
 <210> 6118  
 <211> 113  
 <212> PRT  
 <213> Homo sapiens  
  
 <400> 6118  
 Met Ala Asp Val Glu Asp Gly Glu Glu Thr Cys Ala Leu Ala Ser His  
 1                      5                      10                      15  
 Ser Gly Ser Ser Gly Ser Lys Ser Gly Gly Asp Lys Met Phe Ser Leu

```

      20      25      30
Lys Lys Trp Asn Ala Val Ala Met Trp Ser Trp Asp Val Glu Cys Asp
  35      40      45
Thr Cys Ala Ile Cys Arg Val Gln Val Met Asp Ala Cys Leu Arg Cys
  50      55      60
Gln Ala Glu Asn Lys Gln Glu Asp Cys Val Val Val Trp Gly Glu Cys
  65      70      75      80
Asn His Ser Phe His Asn Cys Cys Met Ser Leu Trp Val Lys Gln Asn
      85      90      95
Asn Arg Cys Pro Leu Cys Gln Gln Asp Trp Val Val Gln Arg Ile Gly
  100      105      110
Lys

```

<210> 6119  
 <211> 375  
 <212> DNA  
 <213> Homo sapiens

```

<400> 6119
accggttgac aacctcccta tggggaagct agatacagcc ccatggacat gcccactga
60
ccccacacc ccacacggac tgcacggaaa taccacagta accatctctc agtcacagcg
120
tggccccaca gaactcatgc ctgcttgctt taaaccacc aatgaaaact ccccatggga
180
aacctgcttg gataatactt tggaccccaa taaatgcttt aatccacaa gtcctctgtc
240
tctgcctctc tcttgccctt acccactggt tgagcatgtg tgtcccaaac ggccctgcaa
300
ggtgtgctgc cctgttcttt ctgggctctg tcaaggaatc aaactgcttc tgttatgtga
360
tgtgtcatgt tgtgc
375

```

<210> 6120  
 <211> 118  
 <212> PRT  
 <213> Homo sapiens

```

<400> 6120
Met Gly Lys Leu Asp Thr Ala Pro Trp Thr Cys Pro Thr Asp Pro His
1      5      10      15
Thr Pro His Gly Leu His Gly Asn Ile Thr Val Thr Ile Ser Gln Ser
20      25      30
Gln Arg Gly Pro Thr Glu Leu Met Pro Ala Cys Phe Lys Pro Thr Asn
35      40      45
Glu Asn Ser Pro Trp Glu Thr Cys Leu Asp Asn Thr Leu Asp Pro Asn
50      55      60
Lys Cys Phe Asn Pro Thr Ser Pro Leu Ser Leu Pro Leu Ser Cys Pro
65      70      75      80
Tyr Pro Leu Val Glu His Val Cys Pro Lys Arg Pro Cys Lys Val Cys
85      90      95
Cys Pro Val Leu Ser Gly Leu Cys Gln Gly Ile Lys Leu Leu Leu Leu

```



100 105 110  
 Cys Asp Val Ser Cys Cys  
 115  
 <210> 6121  
 <211> 1039  
 <212> DNA  
 <213> Homo sapiens  
  
 <400> 6121  
 gacggaacgg cgggtggtggc ccgcggaaccg gacggggcac tatgaacgaa gaggagcagt  
 60  
 ttgtaaacat tgatttgaat gatgacaaca ttgcagtggt ttgtaaactg ggaacagaca  
 120  
 aagaaacact ctccttctgc cacatttggt ttgagctaaa tattgagggg gtaccaaagt  
 180  
 ctgatctctt gcacaccaaa tcattaaggg gccataaaga ctgctttgaa aaataccatt  
 240  
 taattgcaaa ccagggttgt cctcgatcta agctttcaaa aagtacttat gaagaagtta  
 300  
 aaaccatttt gagtaagaag ataaactgga ttgtgcagta tgcacaaaat aaggatcttg  
 360  
 attcagattc tgaatgttct aaaaagcccc agcatcatct gtttaatttc aggcataagc  
 420  
 cagaagaaaa attactccca cagtttgagt cccaagtacc aaaatattct gcaaaatgga  
 480  
 tagatggaag tgcaggtggc atctctaact gtacacaaag aattttggag cagagggaaa  
 540  
 atacagactt tggactttct atgttacaag attcaggtgc cactttatgt cgtaacagt  
 600  
 tattgtggcc tcatagtcac aaccaggcac agaaaaaaga agagacaatc tctagtccag  
 660  
 aggctaagt ccagaccag catccacatt acagcagaga ggaataagtt ttgaagagt  
 720  
 taactacca agtgcaagaa aaagattctt tggcctcaca gctccatgct cgccacgttg  
 780  
 ccatcgaaca gcttctgaag aactgttcta agttaccatg tctgcaagta gggcgaacag  
 840  
 gaatgaagtc gcacctaccc ataaacaact gacctaaaca gacttacttc gtatgcctg  
 900  
 ccctttattg gtctcccaga catgcaaact ttgaagaagt ttgaagaaag ttgtggtccg  
 960  
 tttttttatg gtcattaaat ttgccaaaca taaggcagta tttaacatct ttgtcaaata  
 1020  
 aagcagatca ttatactct  
 1039  
  
 <210> 6122  
 <211> 221  
 <212> PRT  
 <213> Homo sapiens  
  
 <400> 6122  
 Met Asn Glu Glu Glu Gln Phe Val Asn Ile Asp Leu Asn Asp Asp Asn

```

      1           5           10           15
Ile Cys Ser Val Cys Lys Leu Gly Thr Asp Lys Glu Thr Leu Ser Phe
      20           25           30
Cys His Ile Cys Phe Glu Leu Asn Ile Glu Gly Val Pro Lys Ser Asp
      35           40           45
Leu Leu His Thr Lys Ser Leu Arg Gly His Lys Asp Cys Phe Glu Lys
      50           55           60
Tyr His Leu Ile Ala Asn Gln Gly Cys Pro Arg Ser Lys Leu Ser Lys
      65           70           75           80
Ser Thr Tyr Glu Glu Val Lys Thr Ile Leu Ser Lys Lys Ile Asn Trp
      85           90           95
Ile Val Gln Tyr Ala Gln Asn Lys Asp Leu Asp Ser Asp Ser Glu Cys
      100          105          110
Ser Lys Lys Pro Gln His His Leu Phe Asn Phe Arg His Lys Pro Glu
      115          120          125
Glu Lys Leu Leu Pro Gln Phe Glu Ser Gln Val Pro Lys Tyr Ser Ala
      130          135          140
Lys Trp Ile Asp Gly Ser Ala Gly Gly Ile Ser Asn Cys Thr Gln Arg
      145          150          155          160
Ile Leu Glu Gln Arg Glu Asn Thr Asp Phe Gly Leu Ser Met Leu Gln
      165          170          175
Asp Ser Gly Ala Thr Leu Cys Arg Asn Ser Val Leu Trp Pro His Ser
      180          185          190
His Asn Gln Ala Gln Lys Lys Glu Glu Thr Ile Ser Ser Pro Glu Ala
      195          200          205
Asn Val Gln Thr Gln His Pro His Tyr Ser Arg Glu Glu
      210          215          220

```

&lt;210&gt; 6123

&lt;211&gt; 900

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6123

```

ntgcatgcct gtataccaca gctactcggg aggctgaggc gggagaatcg cttgaaccca
60
ggaggcggag gttgcggtga gctgagatcg caccattgca ctccagcctg ggcaacaaga
120
gcgaacaac aagagaaaaa aaaggaagct gccctctgcc caaaacccac gtcgagggtcc
180
ccaaacctgg gacccttagg tcttttctca cttagcgtgc ccaaccttct cctggcagga
240
aacaagcctc caggtctgct tccccgcaa ggactataca tggcaaatga cttaaagctc
300
ctgagacacc atctccagat tcccatccac tcccccaagg atttcttgct tgtgatgctt
360
gaaaaaggaa gtttgtctgc catgcgtttc ctaccgccg tgaacttga gcatccagag
420
atgctggaga aagcgtcccg ggagctgtgg atgcgcgtct ggtcaagggt gagtgtgggg
480
ctctgggaat cctctgggag gaccttgat gactttctga ccttccccag gcacgttttc
540
agggtcatga tcctgcccc gcccggggga tctactgtcc tcccagtcac acccctctcc
600

```

ccgcaccgcc ttcctgctgt cttctcttct tcccagaatg aagacatcac cgagccgcag  
 660  
 agcatcctgg cggtgcaga gaaggctggt atgtctgcag aacaagccca gggacttctg  
 720  
 gaaaagatcg caacgcaaaa ggtgaagaac cagctcaagg agaccactga ggcagcctgc  
 780  
 agatacggag cctttgggct gcccatcacc gtggcccatg tggatggcca aaccacatg  
 840  
 ttatttggct ctgaccggat ggagctgctg gcgcacctgc tgggagagaa gtggatgggc  
 900

<210> 6124

<211> 300

<212> PRT

<213> Homo sapiens

<400> 6124

Xaa His Ala Cys Ile Pro Gln Leu Leu Gly Arg Leu Arg Arg Glu Asn  
 1 5 10 15  
 Arg Leu Asn Pro Gly Gly Gly Gly Cys Gly Glu Leu Arg Ser His His  
 20 25 30  
 Cys Thr Pro Ala Trp Ala Thr Arg Ala Lys Gln Gln Glu Lys Lys Lys  
 35 40 45  
 Glu Ala Ala Leu Cys Pro Lys Pro Thr Ser Arg Ser Pro Asn Leu Gly  
 50 55 60  
 Pro Leu Gly Leu Phe Ser Leu Ser Val Pro Asn Leu Leu Ala Gly  
 65 70 75 80  
 Asn Lys Pro Pro Gly Leu Leu Pro Arg Lys Gly Leu Tyr Met Ala Asn  
 85 90 95  
 Asp Leu Lys Leu Leu Arg His His Leu Gln Ile Pro Ile His Phe Pro  
 100 105 110  
 Lys Asp Phe Leu Ser Val Met Leu Glu Lys Gly Ser Leu Ser Ala Met  
 115 120 125  
 Arg Phe Leu Thr Ala Val Asn Leu Glu His Pro Glu Met Leu Glu Lys  
 130 135 140  
 Ala Ser Arg Glu Leu Trp Met Arg Val Trp Ser Arg Val Ser Val Gly  
 145 150 155 160  
 Leu Trp Glu Ser Ser Gly Arg Thr Leu Asp Asp Phe Leu Thr Phe Pro  
 165 170 175  
 Arg His Val Phe Arg Val Met Ile Leu Pro Pro Pro Gly Gly Ser Thr  
 180 185 190  
 Val Leu Pro Val Thr Pro Leu Ser Pro His Arg Leu Pro Ala Val Phe  
 195 200 205  
 Ser Ser Ser Gln Asn Glu Asp Ile Thr Glu Pro Gln Ser Ile Leu Ala  
 210 215 220  
 Ala Ala Glu Lys Ala Gly Met Ser Ala Glu Gln Ala Gln Gly Leu Leu  
 225 230 235 240  
 Glu Lys Ile Ala Thr Pro Lys Val Lys Asn Gln Leu Lys Glu Thr Thr  
 245 250 255  
 Glu Ala Ala Cys Arg Tyr Gly Ala Phe Gly Leu Pro Ile Thr Val Ala  
 260 265 270  
 His Val Asp Gly Gln Thr His Met Leu Phe Gly Ser Asp Arg Met Glu  
 275 280 285  
 Leu Leu Ala His Leu Leu Gly Glu Lys Trp Met Gly

290 295 300

<210> 6125  
 <211> 468  
 <212> DNA  
 <213> Homo sapiens

<400> 6125  
 nctacagtca ctcaggagaa gtcccgcatg gaggttctt acttggtga caagaaaaag  
 60  
 atgaaacagg acttagagga tgccagtaac aaggcggagg aggagagggc cgcctggag  
 120  
 ggagaattga aggggctgca ggagcaaata gcagaaacca aagcccggt tatcacgcag  
 180  
 cagcatgac gggccaaga gcagagtac catgccttga tgctgcgtga gctccagaag  
 240  
 ctgctgcagg aggagaggac ccagcgccag gacttgagc ttaggttaga agagaccga  
 300  
 gaagccttg caggacgagc atatgcagct gaacagatgg aaggatttga actgcagacc  
 360  
 aagcagctga cccgtgaggt ggaggagctg aaaagtgaac tgcaggccat tcgagatgag  
 420  
 aagaatcagc cagacccccg gctgcaagaa cttcaggaag aggccgcc  
 468

<210> 6126  
 <211> 156  
 <212> PRT  
 <213> Homo sapiens

<400> 6126  
 Xaa Thr Val Thr Gln Glu Lys Ser Arg Met Glu Ala Ser Tyr Leu Ala  
 1 5 10 15  
 Asp Lys Lys Lys Met Lys Gln Asp Leu Glu Asp Ala Ser Asn Lys Ala  
 20 25 30  
 Glu Glu Glu Arg Ala Arg Leu Glu Gly Glu Leu Lys Gly Leu Gln Glu  
 35 40 45  
 Gln Ile Ala Glu Thr Lys Ala Arg Leu Ile Thr Gln Gln His Asp Arg  
 50 55 60  
 Ala Gln Glu Gln Ser Asp His Ala Leu Met Leu Arg Glu Leu Gln Lys  
 65 70 75 80  
 Leu Leu Gln Glu Glu Arg Thr Gln Arg Gln Asp Leu Glu Leu Arg Leu  
 85 90 95  
 Glu Glu Thr Arg Glu Ala Leu Ala Gly Arg Ala Tyr Ala Ala Glu Gln  
 100 105 110  
 Met Glu Gly Phe Glu Leu Gln Thr Lys Gln Leu Thr Arg Glu Val Glu  
 115 120 125  
 Glu Leu Lys Ser Glu Leu Gln Ala Ile Arg Asp Glu Lys Asn Gln Pro  
 130 135 140  
 Asp Pro Arg Leu Gln Glu Leu Gln Glu Glu Ala Ala  
 145 150 155

<210> 6127  
 <211> 1900

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6127

gtttcctgga ttacaggcca ggcantggag ataggcagcn ncagcctgac tatcctggta  
60  
gaatgctggg atgggcacct gacacccct gaggttgcac ccctggctga cagggcatca  
120  
cgggcaagag actccaatat ggtgagggcg gcagcagagc tggccctgag ctgcctgcct  
180  
cacgcccatg cattgaaccc taatgagatc cagcgggccc tggtgagtg caaggaacag  
240  
gacaacctga tgttgagaa ggcctgcatg gcagtggag aggagctaa gggggggg  
300  
gtgtaccctg aagtgttgtt tgaggttgct caccagtggc tctggctata tgagcaact  
360  
gcaggtggct catccacagc ccgtgaagg gctacaagct gtagtgccag tgggatcagg  
420  
gcaggtgggg aagctgggag gggatgcct gagggtagag ggggccag gactgagccg  
480  
gttacagtgg cagcggcagc agtgacagca gcagccacag tggtgcccg catatcggg  
540  
gggtctagtt tataccggg tccaggactg gggcatggc actccctgg cctgcaccc  
600  
tacactgctc tacagcccca cctgcccgt agccctcagt atctcactca cccagctcac  
660  
cctgccacc ccatgcctca catgccccg cctgccgtc tccctgtgcc cagctctgca  
720  
taccacaggg gtgtgcatcc tgcattccta ggggtcagt acccttattc agtgactcct  
780  
ccctcacttg ctgccactgc tgtgtcttcc cccgttcctt ccatggcacc catcacagta  
840  
catccctacc acacagagcc agggcttcca ctgcccacca gtgtggcctg tgagttgtg  
900  
ggccagggaa cagtgcagc tgtccatcca gcatccacgt ttccagccat ccaaggtg  
960  
tactgcctg cctgaccac acagcccagc cctctggtga gcggaggttt tccaccgccc  
1020  
gaggaggaga cacacagtca gccagtcaat ccccacagcc tgcaccacct gcatgctg  
1080  
taccgtgtcg gaatgctggc actggagatg ctgggtcgcc gggcacacaa cgatcaccc  
1140  
aacaactct cccgtcccc cccctacact gatgatgtca aatggttgct ggggctggca  
1200  
gcaaagctgg gagtgaacta cgtgcaccag ttctgtgtgg gggcagccaa gggggtgct  
1260  
agcccgtttg tgctgcagga gatcgatg gagacgctgc agcggctgag tcccgctcat  
1320  
gcccaaac acctgctgc cccggccttc caccaactgg tgcagcgtg ccagcaggca  
1380  
tacatgcagt acatccacca ccgcttgatt cacctgactc ctgcggacta cgacgactt  
1440  
gtgaatgcga tccggagtgc ccgcagcgcc ttctgcctga cggccatggg catgatgcag  
1500

ttcaacgaca tcctacagaa cctcaagcgc agcaaacaga ccaaggagct gtggcagcgg  
 1560  
 gttctactcg agatggccac cttctccccc tgagtccttc acccttaggg tcctatacag  
 1620  
 ggacccaggc ctgtggctat gggggcccct cacacagggg gagtgaaact tggctggaca  
 1680  
 gatcctctc actcagttcc ctggtagcac agactgacag ctgctcttgg gctatagctt  
 1740  
 gggggccaaga tgtctcacac cctagaagcc tagggctggg ggagacagcc ctgtctggga  
 1800  
 gggggcggtg ggtggcctct ggtatttatt tggcatttat aaatatataa actccttttt  
 1860  
 tactctagtc gacctgggcc tttcccttct ttccaaattt  
 1900

<210> 6128

<211> 530

<212> PRT

<213> Homo sapiens

<400> 6128

Val	Ser	Trp	Ile	Thr	Gly	Gln	Ala	Xaa	Glu	Ile	Gly	Ser	Xaa	Ser	Leu
1			5						10					15	
Thr	Ile	Leu	Val	Glu	Cys	Trp	Asp	Gly	His	Leu	Thr	Pro	Pro	Glu	Val
		20						25					30		
Ala	Ser	Leu	Ala	Asp	Arg	Ala	Ser	Arg	Ala	Arg	Asp	Ser	Asn	Met	Val
		35					40					45			
Arg	Ala	Ala	Ala	Glu	Leu	Ala	Leu	Ser	Cys	Leu	Pro	His	Ala	His	Ala
		50				55					60				
Leu	Asn	Pro	Asn	Glu	Ile	Gln	Arg	Ala	Leu	Val	Gln	Cys	Lys	Glu	Gln
		65			70					75				80	
Asp	Asn	Leu	Met	Leu	Glu	Lys	Ala	Cys	Met	Ala	Val	Glu	Glu	Ala	Ala
			85						90					95	
Lys	Gly	Gly	Gly	Val	Tyr	Pro	Glu	Val	Leu	Phe	Glu	Val	Ala	His	Gln
		100					105						110		
Trp	Phe	Trp	Leu	Tyr	Glu	Gln	Thr	Ala	Gly	Gly	Ser	Ser	Thr	Ala	Arg
		115					120					125			
Glu	Gly	Ala	Thr	Ser	Cys	Ser	Ala	Ser	Gly	Ile	Arg	Ala	Gly	Gly	Glu
		130				135					140				
Ala	Gly	Arg	Gly	Met	Pro	Glu	Gly	Arg	Gly	Gly	Pro	Gly	Thr	Glu	Pro
		145				150				155				160	
Val	Thr	Val	Ala	Ala	Ala	Ala	Val	Thr	Ala	Ala	Ala	Thr	Val	Val	Pro
			165						170					175	
Val	Ile	Ser	Val	Gly	Ser	Ser	Leu	Tyr	Pro	Gly	Pro	Gly	Leu	Gly	His
			180					185					190		
Gly	His	Ser	Pro	Gly	Leu	His	Pro	Tyr	Thr	Ala	Leu	Gln	Pro	His	Leu
		195					200					205			
Pro	Cys	Ser	Pro	Gln	Tyr	Leu	Thr	His	Pro	Ala	His	Pro	Ala	His	Pro
		210				215					220				
Met	Pro	His	Met	Pro	Arg	Pro	Ala	Val	Phe	Pro	Val	Pro	Ser	Ser	Ala
		225				230					235			240	
Tyr	Pro	Gln	Gly	Val	His	Pro	Ala	Phe	Leu	Gly	Ala	Gln	Tyr	Pro	Tyr
			245						250					255	
Ser	Val	Thr	Pro	Pro	Ser	Leu	Ala	Ala	Thr	Ala	Val	Ser	Phe	Pro	Val

260 265 270  
 Pro Ser Met Ala Pro Ile Thr Val His Pro Tyr His Thr Glu Pro Gly  
 275 280 285  
 Leu Pro Leu Pro Thr Ser Val Ala Cys Glu Leu Trp Gly Gln Gly Thr  
 290 295 300  
 Val Ser Ser Val His Pro Ala Ser Thr Phe Pro Ala Ile Gln Gly Ala  
 305 310 315 320  
 Ser Leu Pro Ala Leu Thr Thr Gln Pro Ser Pro Leu Val Ser Gly Gly  
 325 330 335  
 Phe Pro Pro Pro Glu Glu Glu Thr His Ser Gln Pro Val Asn Pro His  
 340 345 350  
 Ser Leu His His Leu His Ala Ala Tyr Arg Val Gly Met Leu Ala Leu  
 355 360 365  
 Glu Met Leu Gly Arg Arg Ala His Asn Asp His Pro Asn Asn Phe Ser  
 370 375 380  
 Arg Ser Pro Pro Tyr Thr Asp Asp Val Lys Trp Leu Leu Gly Leu Ala  
 385 390 395 400  
 Ala Lys Leu Gly Val Asn Tyr Val His Gln Phe Cys Val Gly Ala Ala  
 405 410 415  
 Lys Gly Val Leu Ser Pro Phe Val Leu Gln Glu Ile Val Met Glu Thr  
 420 425 430  
 Leu Gln Arg Leu Ser Pro Ala His Ala His Asn His Leu Arg Ala Pro  
 435 440 445  
 Ala Phe His Gln Leu Val Gln Arg Cys Gln Gln Ala Tyr Met Gln Tyr  
 450 455 460  
 Ile His His Arg Leu Ile His Leu Thr Pro Ala Asp Tyr Asp Asp Phe  
 465 470 475 480  
 Val Asn Ala Ile Arg Ser Ala Arg Ser Ala Phe Cys Leu Thr Pro Met  
 485 490 495  
 Gly Met Met Gln Phe Asn Asp Ile Leu Gln Asn Leu Lys Arg Ser Lys  
 500 505 510  
 Gln Thr Lys Glu Leu Trp Gln Arg Val Ser Leu Glu Met Ala Thr Phe  
 515 520 525  
 Ser Pro  
 530

<210> 6129  
 <211> 2012  
 <212> DNA  
 <213> Homo sapiens

<400> 6129  
 ataggagcag tttcagtacc agcccgagta ggatggaatc aaacacgggtg ctggaacatt  
 60  
 cctaccggga agtggccccg acccccctcc ccccgccccg gcctcccacg cacggggggg  
 120  
 gggggggggg gggctgatcg gcgctaccgg attggacaac ttggcatggg gcggggcctc  
 180  
 tgggaggcgt ggctccggc cggtcctct gctgttgcca agggaaactg ccgcgaggag  
 240  
 gcggaaggag cagaggaccg gcagccggcg tcgaggcggg gcgcgggaac gacggcggcc  
 300  
 atggcggcct cggggcccg gtgtcgagc tgggtgctgt gtcccagggt gccatccgcc  
 360

acctttcttca ctgcgctgct ctgcgctgctg gtttccgggc ctgcctgtt cctgctgcag  
420  
cagccccctgg cgccctcggg cctcacgctg aagtcgagg cccttcgcaa ctggcaagtt  
480  
tacaggctgg taacctacat ctttgtctac gagaatccca tctccctgct ctgcggcgct  
540  
atcatcatct ggcgcttttg tggcaatttc gagagaaccg tgggcaccgt ccgccactgc  
600  
ttcttcaccg tgatcttctg catcttctcc gctatcatct tectgtcatt cgaggctgtg  
660  
tcatactgt caaagctggg ggaagtggag gatgccagag gtttcacccc agtggccttt  
720  
gccatgctgg gagtccacc cgctccgttct cggatgaggc gggccctggg gtttgcatg  
780  
gttgtgcctt cagtctgtgt tccgtggctc ctgctgggtg cctcgtggct cattccccag  
840  
acctcttttc tcagtaagt ctgcgggctg tccatcgggc tggcctatgg cctcacctac  
900  
tgctattcca tcgacctctc agagcgagtg gcgctgaagc tcgatcagac cttcccttc  
960  
agcctgatga ggaggatata cgtgttcaag tacgtctcag ggtcttcagc cgagaggagg  
1020  
gcagcccaga gccggaaact gaaccctggg cctggctcct accccacaca gagctgccac  
1080  
cttcacctgt ccccaagcca ccctgtgtcc cagacgcagc acgccagtgg tcagaagctg  
1140  
gcctcctggc cctcctgcac ccccgggcac atgcccacct tgctccgta ccagcctgcc  
1200  
tccggcctgt gctatgtgca gaaccacttt ggtccaaacc ccacctctc cagtgtctac  
1260  
ccagcttctg cgggcacctc cctgggcata cagcccccca cgcctgtgaa cagccctggc  
1320  
acgggtgtatt ctggggcctt gggcacacca ggggctgcag gctccaagga gtcctccagg  
1380  
gtccccatgc cctgagagaa tttctaggga agtcattctc cttggccttc tgaaggctct  
1440  
ccctaagagt ctctgacaa aagttactta ttgaacacct ctatgtgcca ggctctgtgt  
1500  
tgggtacttt gatcaatgcc cctgtttcag tctcatctgt actcacggca gccctgtgga  
1560  
gtacgggtga ctggcccagc ttacagatgc agaaagcgag acgttctgcc atcagataaa  
1620  
gtcacgtggc tctttagtaa cacggacaag gctcctcgcc aaggaaactg tggcagaaga  
1680  
gggcagcagt tggcagtagc tgccgatgtc tgtccccagc tccaccattc ctccctgtgg  
1740  
ctgtgccgtg ctctgtggtt cagtgtccgt gtgtccatgt gtctgccctt caggagctcg  
1800  
cagctgggtg gcttggcggg cccaggcctg tgtagtgtct ctccctgct gcgggcgccc  
1860  
ccaccccgat tcctctcccc agaagcggtg ggatgggccc ccatgaactg cagcagcatg  
1920  
ctgagggtgc catgttgtct gcctttgtat aaagaaacag cctctgacct gcaaaaaaaa  
1980



aaaaaaaaa aaaaaaaaaa aaaaaaaaaa aa  
2012

<210> 6130  
<211> 364  
<212> PRT  
<213> Homo sapiens

<400> 6130  
Met Ala Ala Ser Gly Pro Gly Cys Arg Ser Trp Cys Leu Cys Pro Glu  
1 5 10 15  
Val Pro Ser Ala Thr Phe Phe Thr Ala Leu Leu Ser Leu Leu Val Ser  
20 25 30  
Gly Pro Arg Leu Phe Leu Leu Gln Gln Pro Leu Ala Pro Ser Gly Leu  
35 40 45  
Thr Leu Lys Ser Glu Ala Leu Arg Asn Trp Gln Val Tyr Arg Leu Val  
50 55 60  
Thr Tyr Ile Phe Val Tyr Glu Asn Pro Ile Ser Leu Leu Cys Gly Ala  
65 70 75 80  
Ile Ile Ile Trp Arg Phe Ala Gly Asn Phe Glu Arg Thr Val Gly Thr  
85 90 95  
Val Arg His Cys Phe Phe Thr Val Ile Phe Ala Ile Phe Ser Ala Ile  
100 105 110  
Ile Phe Leu Ser Phe Glu Ala Val Ser Ser Leu Ser Lys Leu Gly Glu  
115 120 125  
Val Glu Asp Ala Arg Gly Phe Thr Pro Val Ala Phe Ala Met Leu Gly  
130 135 140  
Val Thr Thr Val Arg Ser Arg Met Arg Arg Ala Leu Val Phe Gly Met  
145 150 155 160  
Val Val Pro Ser Val Leu Val Pro Trp Leu Leu Leu Gly Ala Ser Trp  
165 170 175  
Leu Ile Pro Gln Thr Ser Phe Leu Ser Asn Val Cys Gly Leu Ser Ile  
180 185 190  
Gly Leu Ala Tyr Gly Leu Thr Tyr Cys Tyr Ser Ile Asp Leu Ser Glu  
195 200 205  
Arg Val Ala Leu Lys Leu Asp Gln Thr Phe Pro Phe Ser Leu Met Arg  
210 215 220  
Arg Ile Ser Val Phe Lys Tyr Val Ser Gly Ser Ser Ala Glu Arg Arg  
225 230 235 240  
Ala Ala Gln Ser Arg Lys Leu Asn Pro Val Pro Gly Ser Tyr Pro Thr  
245 250 255  
Gln Ser Cys His Pro His Leu Ser Pro Ser His Pro Val Ser Gln Thr  
260 265 270  
Gln His Ala Ser Gly Gln Lys Leu Ala Ser Trp Pro Ser Cys Thr Pro  
275 280 285  
Gly His Met Pro Thr Leu Pro Pro Tyr Gln Pro Ala Ser Gly Leu Cys  
290 295 300  
Tyr Val Gln Asn His Phe Gly Pro Asn Pro Thr Ser Ser Ser Val Tyr  
305 310 315 320  
Pro Ala Ser Ala Gly Thr Ser Leu Gly Ile Gln Pro Pro Thr Pro Val  
325 330 335  
Asn Ser Pro Gly Thr Val Tyr Ser Gly Ala Leu Gly Thr Pro Gly Ala  
340 345 350  
Ala Gly Ser Lys Glu Ser Ser Arg Val Pro Met Pro

355

360

<210> 6131  
<211> 3526  
<212> DNA  
<213> Homo sapiens

<400> 6131  
nngggagcgg cgagtaagat ggaagatgag gaggtcgctg agagctggga agaggcggca  
60  
gacagcgggg aaatagacag acggttgga aaaaaactga agatcacaca aaaagagagc  
120  
aggaaatcca aatctcctcc caaagtgtcc attgtgatcc aggacgatag ccttcccgcg  
180  
gggccccctc cacagatccg catcctcaag agggccacca gcaacggtgt ggtcagcagc  
240  
cccaactcca ccagcaggcc cacccttcca gtcaagtccc tagcacagcg agaggccgag  
300  
tacgccgagg ccggaagcg gatcctgggc agcggccagcc ccgaggagga gcaggagaaa  
360  
cccatcctcg acaggtcttc ctctgatctt ctcccttcca ggccaaccag gatctcccaa  
420  
cccgaaagaca gcaggcagcc caataatgtg atcagacagc ctttgggtcc tgatgggtca  
480  
cacggcttca aacagcgag ataaatgcag gcaagaaaag atgccgcgtg tgcctgccgc  
540  
accgcctcct gggtcgctcc ccacgggttg cactgccgtg gcagacagct ggacttgagc  
600  
agagggaacg acctgactta ctgacactgt gatccccctt gctccgcccc ctgtgacctt  
660  
gaaccccatg cactgtgacc tcccccttc tcccccttcc cactgtgatt ggcacatcga  
720  
caagggctgt cccaagtcaa tggaaaggga aaggggtggg gttaggggaa ggttggggg  
780  
accagcaag gactcagaga gtcagacagt gccacttggc cacttggggg aaagccagt  
840  
ccagcaataa cagtttatca tgctcattaa tttgggattt caaacacaa atgaaaactc  
900  
acacccccc accccaagt gcatgtctcc atcacttaaa aagtaagttc catttgaaaa  
960  
tatcctttct ttttttttc ttcctatctt tgtttgttta tacaatatc tgatttgcaa  
1020  
gaaaaagtgc atgggagggg ttttagtggt ttaatgaatt ttaattaag aaagggtagt  
1080  
ttggtagtct acttaaaaat gtttctggga aattcactag aaacattaac caataggatt  
1140  
ttggtgagct tagcttctgt attcctactg ccgcccagaa aaggggcagg gctctgcagc  
1200  
cgccaggaca gacgagcacc ccctgcttat acctccctcc ccgagctaag tcccagggca  
1260  
tctgggcctt gcctggagac tgggctagct ctgtaggctc ggagagcctg gggaggggtc  
1320  
caaccccacc tctagtattt tgggagatag ggaaagtga cgcacttccc ctcccatatc  
1380

5309

ccctcagggg ggttccctac cagccaggct tactacttct agaagaaagc agagtgccag  
1440  
ggagttagat tgcattccctg ggcttagaag tgacggagag aagacttggt tagtatatttg  
1500  
ccatcagcac aaggaaaacc aggagagagt ctgcctccag gactctgagc cttctgcctc  
1560  
gtatgttcag aagggtgata ggtcttccca ctccagcatg gcttgaactc ttaggggtct  
1620  
gcagtgcctc atctccattg gtggccccag ctgagtaact atacctggta catttcctgt  
1680  
gtgcaatcag taccttgaag gcagaacatt ctgaataaag ttggaaaaag aacagctttg  
1740  
ctttgcaaag attgatgaca gactgggttc tcagaggcct aggctacccg tcaccccttt  
1800  
ttccagagcg agggcctgga atgaaggcag tttatcctct gtccctggag cctgggggtt  
1860  
gctttggctc cttgaggtgg aagagactaa gagggcagct gcccagagca gctgtgtgta  
1920  
cctggctcct ctccagcttc ctgacctt ccattgcact gcgccttatc cctcagccag  
1980  
ccagacagcc tccctgctcc tgaccagcag atacgtttcg gagtgggttg tgtggttttt  
2040  
gtgatgaggg cagcacgtgg tggccaagg gacaagctga gtctcacagg ctccactcct  
2100  
cgttgggttc ctgtgggaat ggtaggccag gccagtaag ccatgcccc aacagctctc  
2160  
tcctccggag gaaggccag ctgccagctg agtcagcagc tagtccatag cacagcctta  
2220  
taactgtaaa gccaggcatt gcccatgagc agagctggaa ccagagcttc agtcagtaag  
2280  
agggaggatt accttcagga gaaggcaagg aagaaaactg gctgctatct ttatagtctc  
2340  
actgccctaa ccaagtgtcc acattctaaa tgtgtagtgt ccatccctta tgtaatagt  
2400  
gtttcccgcc caaagtgaga ctttcctttt aattggagaa gggtagagag gtagtccagg  
2460  
tgggaaagcc agaagtgtg attgccagc cattgggacc acctgttctt gcccactac  
2520  
cctctagtgg gagggcaaa taaaggctgg ctggtgggtg tctgtggatt gaggatgtgg  
2580  
cagggactgg tcctccacc tccctctggc caaagatggg ctttggccgc tgtgtgcctg  
2640  
tcaccacca ccagcagtc tgccctgggc tccccaaatg gagaggtagc aggcaacgtt  
2700  
tttaaaaaga aagaaaacag gaaactgtat tgtgtcgggg gaggggggag ggagatgagg  
2760  
aaacggtttg gatattgtgt gtgggagggg attttttggg ggtagtgtc tgtaacttc  
2820  
ctaagtgcct ttttccctt tcttttttaa agtaagtgc aggtttggc ttggaaaacc  
2880  
ccagggggat ggggggcagg aacctgagc tgctgcccct ttatctgcct tcacggtact  
2940  
gtccccctcc ccagctcct ccctgacccc atgggcccag cctcagacct tccagctaac  
3000

cgcttcccat gagccactac tctgatgtca gcctataacc aaaggagctg ggggggtccag  
 3060  
 gcctgggtgac caacettctt cagccactc aatcaggggtg ctccccacct gcaggcagga  
 3120  
 ggcaacaccc tatctgtac catcagcccc ttccagagcc catctgcccc gccagccct  
 3180  
 gccctgcccc gccataccct gctctgcccc atctgggggt gccctgtca gggatgggct  
 3240  
 ggaggggctg taccagcct cctggtaag cagagactca agaaacctct ggggtcctgt  
 3300  
 tttctggtcg tgtgatccca ggggtgcaca tggggccctt ggggtgtctga acagaagggc  
 3360  
 atgggagggga ggggtgcacc cctgcagtct tactctgtct gtgtagcggg cagctgcccc  
 3420  
 ctccaccccc accctgcacc gggggctcct gagtcggcag attaagcatt ttataaattg  
 3480  
 tattttaaat acatgtttta aacttgtaaa aaaaaaaaaa aaaaaa  
 3526

<210> 6132  
 <211> 167  
 <212> PRT  
 <213> Homo sapiens

<400> 6132  
 Xaa Gly Ala Ala Ser Lys Met Glu Asp Glu Glu Val Ala Glu Ser Trp  
 1 5 10 15  
 Glu Glu Ala Ala Asp Ser Gly Glu Ile Asp Arg Arg Leu Glu Lys Lys  
 20 25 30  
 Leu Lys Ile Thr Gln Lys Glu Ser Arg Lys Ser Lys Ser Pro Pro Lys  
 35 40 45  
 Val Pro Ile Val Ile Gln Asp Ser Leu Pro Ala Gly Pro Pro Pro  
 50 55 60  
 Gln Ile Arg Ile Leu Lys Arg Pro Thr Ser Asn Gly Val Val Ser Ser  
 65 70 75 80  
 Pro Asn Ser Thr Ser Arg Pro Thr Leu Pro Val Lys Ser Leu Ala Gln  
 85 90 95  
 Arg Glu Ala Glu Tyr Ala Glu Ala Arg Lys Arg Ile Leu Gly Ser Ala  
 100 105 110  
 Ser Pro Glu Glu Glu Gln Glu Lys Pro Ile Leu Asp Arg Ser Ser Ser  
 115 120 125  
 Asp Leu Leu Pro Phe Arg Pro Thr Arg Ile Ser Gln Pro Glu Asp Ser  
 130 135 140  
 Arg Gln Pro Asn Asn Val Ile Arg Gln Pro Leu Gly Pro Asp Gly Ser  
 145 150 155 160  
 His Gly Phe Lys Gln Arg Arg  
 165

<210> 6133  
 <211> 4156  
 <212> DNA  
 <213> Homo sapiens

<400> 6133

nngcgccgc cgcgccggg cccagccgga gccgcgcgcc tgcctctgc ctttgctgc  
60  
gcggtcaga atcaccatcc gcggcgcggg agacgagccg gccgtcccgg gccgggggac  
120  
ccgcccgcga tggccacca ggctcgggtt atgtatgatt ttgctgctga acctggaaat  
180  
aatgaactga cggttaatga aggagaaatc atcacaatca caaatccgga ttaggtgga  
240  
ggatggctgg aaggaagaaa catcaaagga gaacgagggc tggttccac agactacgtt  
300  
gaaattttac ccagtgatgg aaaagatcaa tttctctgtg gaaattcagt ggctgaccaa  
360  
gccttctctg attctctctc agccagcaca gctcaggcca gttcgtcggc tgccagcaac  
420  
aatcaccagg ttggcagtgg caatgacccc tggtcagcct ggagtgcctc caaatctggg  
480  
aactgggaaa gctcagaagg ctggggggcc cagccagagg gggctggagc ccaagaaac  
540  
acaaacactc ccaacaactg ggacactgcc ttcggccacc ccagcgcta ccaaggacca  
600  
gcaactgggt atgatgatga ctgggatgaa gactgggatg ggcccaaac ctcttctac  
660  
tttaaggatt cagagtcagc tgatgcaggc ggcgctcagc gaggaaacag tcgtgctagt  
720  
tcctcatcca tgaatttcc ccttaacaaa tttctctgat ttgcgaaacc tggcacggaa  
780  
cagtatttgt tggccaaaca actagcaaaa cccaaagaga aaattcccat cattgttga  
840  
gattatggcc caatgtgggt ttatcctacc tctacttttg actgtgtggt agcagatccc  
900  
agaaaaggct ccaaatgta tgggtctaaag agctacatcg aatatcagct aacacctact  
960  
aacactaatc gatctgtaaa ccacaggtat aagcactttg actggttata tgagcgtctc  
1020  
ctgggttaagt ttgggtcagc cattccaatc ccttctcttc cagacaaaca agtcacaggc  
1080  
cgctttgaag aggaatttat caaatgcgc atggagagac ttcaggcctg gatgaccagg  
1140  
atgtgtcgcc atccagtaat ctcaaaaagt gaagttttcc agcagttcct aaatttccga  
1200  
gatgagaagg aatggaaaac tggaaagagg aaggccgaga gagatgagct ggcgggagtc  
1260  
atgatatttt ccaccatgga accagaggca cctgacttgg acttagtaga aatagagcag  
1320  
aagtgcgagg ctgtggggaa gttcaccaag gccatggatg acggcgtgaa ggagctgctg  
1380  
acggtggggc aggagcactg gaagcgctgc acggggccat tacccaagga atatcagaag  
1440  
ataggaaaagg ccttgacagag tttggccaca gtgttcagtt ccagtggcta tcaagtgaa  
1500  
acagatctca atgatgcaat aacagaagca ggaaagactt atgaagaaat tgccagtctc  
1560  
gtggcagaac agccaaagaa agatctccat ttcctgatgg aatgtaatca cgagtataaa  
1620

ggttttcttg gctgcttccc tgacatcatt ggcaactcaca agggagcaat agaaaaagtg  
1680  
aaagaaagtg acaaactagt tgcaacaagt aaaatcacc tacaagacaa acagaacatg  
1740  
gtgaagagag tcagcatcat gtcttacgag ttgcaagctg agatgaatca ctttcacagt  
1800  
aaccggatct atgattacaa cagtgtcacc cgcctgtacc tggagcagca agtgcaattt  
1860  
tacgaaacga ttgcagaaaa gctgaggcag gccctcagcc gctttccagt gatgtaggac  
1920  
agaacggggc ttgaagagaa tgccgcgtgc tttctcctga cttggggcaa tgcaattcaa  
1980  
aacttttttt cccctattat tcagaaaaaa aaggaaacaa aacccaaaag aaagagttgc  
2040  
aaaaaaactgc atttatttta ttagccaccc taaatgcgtc agttatttag ggatggtctt  
2100  
ttgttcattt ccgcatccat tatttaaacc agtggaaatt gtctctattt ttggaagta  
2160  
cttaaaagt accagaattt tcaatggaaa atgaggggtt tctccccact gatattttac  
2220  
atagagtcac aatttatatg tcttataaat tataagtctt atataattta taagtctccc  
2280  
acaatcttcc agttcttacc cagtgtcaga taattaatta ctaattactt tcttaaaaac  
2340  
atgaactatg ccagaataaa aaatatctat gttgtatat tttataaact cttttcagtc  
2400  
ctctggggct cctgtcattg aggggaagtc ttacgccttt cactgccaca gttacagtc  
2460  
aagtgcctac acttcaagag ggaggacgct gggggccctt ggggctgcta gtgccatcgt  
2520  
gggtgtgtgc aggtgggcca tcccatgtcc ctccaggggg accccacagc ctggcagatg  
2580  
agcagatacc cctggccacc catgtcctca gcgacatttc tgatgtgctg ctcttatgtg  
2640  
aggaccagt ctttctctct ttgcacttcc ttcctaactt tggtaaaggc atgttttatg  
2700  
ccatgaagaa tacattagaa gaattgaggg actttgtaga gaattttgtg gctttggtcc  
2760  
aacgggtgag tggctgtgag gaggcctgtg ttccggaggg cctgggagaa ggagggcacc  
2820  
cagcaccgcc gcgtctcttg ccctttctta ttctttggt cctcatccac cgtgatgaga  
2880  
agcgctgctg tggccacggc aactgcttg gcttgggtgg cgggttcag gccagtgtg  
2940  
gtcatcagca aagagaaaaa gcacaggta gctccccatt agatggaaaa gtgtagggac  
3000  
tgagaagggc tgacgcctca gcagtgtaca gagtccccgg cgctctgagg ttggagagaa  
3060  
agaacagacc agcgcccttc ctgactacat ccgaaacttc acacagggtg tttctgagca  
3120  
ccagcacttc cagcgcttca cttaacggca taaagcaaaa caggaccttg gcacaccgtc  
3180  
agctcgaact caaactggc agccaccgtc tcaccctgc ggaggagcgc tcccgctctc  
3240

cacagggtgcc ttaccgcgtt cctccccgct gctttcattt ttctgacctt ataattacgg  
 3300  
 gaaatggaaa gtctgggcca gcatcaataa aatgacacca aaaataagta gatgaaatca  
 3360  
 aatgaatatg agaacatctt gttcttcaat atcacggggtt tttgttaatg ttctcataagt  
 3420  
 aattctcccc acttgatttt tcttctataa aatcccatag aacaatgttt atgctatagc  
 3480  
 catttaatat atgtacaaat tgtaaagaat atgtataaat gttttacacg aatgtaagag  
 3540  
 catgtagaag ccaacatata aataaattgt ttaaaaaaac tgtacagtaa attctcaaag  
 3600  
 cactttttca aaacactttt tggactttgt gtgtgatttt tgtgtgtgtt gttaagtact  
 3660  
 ttttattcca gctgctgaaa atgggtccagg taatgaattc ttccccaat cctatttctt  
 3720  
 ctgacatgaa ttcacatctt cagttccgta ggtcagtggt gcgggtccggg aagcgtatca  
 3780  
 taaccacctg ggagttgcca agaagcagac agtctccag tgtctgactc tcggatattt  
 3840  
 ggatttgact ggtgtgaggg aaagtgaaaa agggatgggg gaaatggaga tggcacgggc  
 3900  
 tcctcagagc gtggtagccg actgtgagga aaagcagagg gaatgtgaaa gaaaataaga  
 3960  
 gaatccacgg gatttgatgc ctggaagatt ctccttcaag tggcaacatg gcatatatat  
 4020  
 ccttctccgg ggagtcacat gcaccatttg gttcttagat acgttgatgt tttgattttt  
 4080  
 aatgatttgt atcaacctgt aggtaccaca gaagagctgt agtcatacaa tcacataact  
 4140  
 tttacaaata tagtgg  
 4156

<210> 6134

<211> 595

<212> PRT

<213> Homo sapiens

<400> 6134

Met	Ala	Thr	Lys	Ala	Arg	Val	Met	Tyr	Asp	Phe	Ala	Ala	Glu	Pro	Gly
1			5						10				15		
Asn	Asn	Glu	Leu	Thr	Val	Asn	Glu	Gly	Glu	Ile	Ile	Thr	Ile	Thr	Asn
			20					25					30		
Pro	Asp	Val	Gly	Gly	Gly	Trp	Leu	Glu	Gly	Arg	Asn	Ile	Lys	Gly	Glu
			35				40					45			
Arg	Gly	Leu	Val	Pro	Thr	Asp	Tyr	Val	Glu	Ile	Leu	Pro	Ser	Asp	Gly
			50			55					60				
Lys	Asp	Gln	Phe	Ser	Cys	Gly	Asn	Ser	Val	Ala	Asp	Gln	Ala	Phe	Leu
					70				75					80	
Asp	Ser	Leu	Ser	Ala	Ser	Thr	Ala	Gln	Ala	Ser	Ser	Ser	Ala	Ala	Ser
				85				90					95		
Asn	Asn	His	Gln	Val	Gly	Ser	Gly	Asn	Asp	Pro	Trp	Ser	Ala	Trp	Ser
			100					105					110		
Ala	Ser	Lys	Ser	Gly	Asn	Trp	Glu	Ser	Ser	Glu	Gly	Trp	Gly	Ala	Gln

```

      115      120      125
Pro Glu Gly Ala Gly Ala Gln Arg Asn Thr Asn Thr Pro Asn Asn Trp
      130      135      140
Asp Thr Ala Phe Gly His Pro Gln Ala Tyr Gln Gly Pro Ala Thr Gly
145      150      155      160
Asp Asp Asp Asp Trp Asp Glu Asp Trp Asp Gly Pro Lys Ser Ser Ser
      165      170      175
Tyr Phe Lys Asp Ser Glu Ser Ala Asp Ala Gly Gly Ala Gln Arg Gly
      180      185      190
Asn Ser Arg Ala Ser Ser Ser Ser Met Lys Ile Pro Leu Asn Lys Phe
      195      200      205
Pro Gly Phe Ala Lys Pro Gly Thr Glu Gln Tyr Leu Leu Ala Lys Gln
      210      215      220
Leu Ala Lys Pro Lys Glu Lys Ile Pro Ile Ile Val Gly Asp Tyr Gly
225      230      235      240
Pro Met Trp Val Tyr Pro Thr Ser Thr Phe Asp Cys Val Val Ala Asp
      245      250      255
Pro Arg Lys Gly Ser Lys Met Tyr Gly Leu Lys Ser Tyr Ile Glu Tyr
      260      265      270
Gln Leu Thr Pro Thr Asn Thr Asn Arg Ser Val Asn His Arg Tyr Lys
      275      280      285
His Phe Asp Trp Leu Tyr Glu Arg Leu Leu Val Lys Phe Gly Ser Ala
      290      295      300
Ile Pro Ile Pro Ser Leu Pro Asp Lys Gln Val Thr Gly Arg Phe Glu
305      310      315      320
Glu Glu Phe Ile Lys Met Arg Met Glu Arg Leu Gln Ala Trp Met Thr
      325      330      335
Arg Met Cys Arg His Pro Val Ile Ser Glu Ser Glu Val Phe Gln Gln
      340      345      350
Phe Leu Asn Phe Arg Asp Glu Lys Glu Trp Lys Thr Gly Lys Arg Lys
      355      360      365
Ala Glu Arg Asp Glu Leu Ala Gly Val Met Ile Phe Ser Thr Met Glu
      370      375      380
Pro Glu Ala Pro Asp Leu Asp Leu Val Glu Ile Glu Gln Lys Cys Glu
385      390      395      400
Ala Val Gly Lys Phe Thr Lys Ala Met Asp Asp Gly Val Lys Glu Leu
      405      410      415
Leu Thr Val Gly Gln Glu His Trp Lys Arg Cys Thr Gly Pro Leu Pro
      420      425      430
Lys Glu Tyr Gln Lys Ile Gly Lys Ala Leu Gln Ser Leu Ala Thr Val
      435      440      445
Phe Ser Ser Ser Gly Tyr Gln Gly Glu Thr Asp Leu Asn Asp Ala Ile
      450      455      460
Thr Glu Ala Gly Lys Thr Tyr Glu Glu Ile Ala Ser Leu Val Ala Glu
465      470      475      480
Gln Pro Lys Lys Asp Leu His Phe Leu Met Glu Cys Asn His Glu Tyr
      485      490      495
Lys Gly Phe Leu Gly Cys Phe Pro Asp Ile Ile Gly Thr His Lys Gly
      500      505      510
Ala Ile Glu Lys Val Lys Glu Ser Asp Lys Leu Val Ala Thr Ser Lys
      515      520      525
Ile Thr Leu Gln Asp Lys Gln Asn Met Val Lys Arg Val Ser Ile Met
      530      535      540
Ser Tyr Ala Leu Gln Ala Glu Met Asn His Phe His Ser Asn Arg Ile

```



545                      550                      555                      560  
 Tyr Asp Tyr Asn Ser Val Ile Arg Leu Tyr Leu Glu Gln Gln Val Gln  
                             565                      570                      575  
 Phe Tyr Glu Thr Ile Ala Glu Lys Leu Arg Gln Ala Leu Ser Arg Phe  
                             580                      585                      590  
 Pro Val Met  
                             595

<210> 6135  
 <211> 526  
 <212> DNA  
 <213> Homo sapiens

<400> 6135  
 tcgacgtccc tccttctgag ccatcagcaa ctaggcgact acaggaaact tactccaaat  
 60  
 tgctactaga aaagaccttg cttgaagagc catctcatca acatgttacg caggaaacac  
 120  
 aggccaaacc agggatcag ccatctggag aatctgacaa agaaaacaaa gtacaggaac  
 180  
 gtcccccaag tgcgtcttcc agtagtgaca tgtctctctc agaacctcca cagcctcttg  
 240  
 caagaaaaga cttgatggaa tctacatgga tgcagcctga aagattgagc ccacaagttc  
 300  
 accattctca accacagcct ttgtctggaa cagctggaag tttactctcc catctcttga  
 360  
 gtttagagca ttaggaatt ttgcataagg attttgaatc tattttacca accaggaaga  
 420  
 atcataatat ggcttcaagg ccattaactt ttacacctca accatatgtg acctcaccag  
 480  
 ctgcttatac agatgccttg gtaaaccta gtgccagcca atataa  
 526

<210> 6136  
 <211> 105  
 <212> PRT  
 <213> Homo sapiens

<400> 6136  
 Met Ser Leu Ser Glu Pro Pro Gln Pro Leu Ala Arg Lys Asp Leu Met  
 1                      5                      10                      15  
 Glu Ser Thr Trp Met Gln Pro Glu Arg Leu Ser Pro Gln Val His His  
                             20                      25                      30  
 Ser Gln Pro Gln Pro Phe Ala Gly Thr Ala Gly Ser Leu Leu Ser His  
                             35                      40                      45  
 Leu Leu Ser Leu Glu His Val Gly Ile Leu His Lys Asp Phe Glu Ser  
                             50                      55                      60  
 Ile Leu Pro Thr Arg Lys Asn His Asn Met Ala Ser Arg Pro Leu Thr  
 65                      70                      75                      80  
 Phe Thr Pro Gln Pro Tyr Val Thr Ser Pro Ala Ala Tyr Thr Asp Ala  
                             85                      90                      95  
 Leu Val Lys Pro Ser Ala Ser Gln Tyr  
                             100                      105

<210> 6137  
<211> 2073  
<212> DNA  
<213> Homo sapiens

<400> 6137  
ngcgccgcgc aagcgatccc tgctccgcgc gacactgcgt gccgcgcac gcagagagggc  
60  
ggtgacgcac ttacggcgcg cagcgtaagt gcgtgacgct cgtcagtggc ttcagttcac  
120  
acgtggcgcc agcggaggca ggttgctgtg tttgtgcttc cttctacagc caatatgaaa  
180  
aggcctaagt taaagaaagc aagtaaacgc atgacctgcc ataagcggta taaaatccaa  
240  
aaaaagggttc gagaacatca tcgaaaaatta agaaaggagg ctaaaaagca gggtcacaag  
300  
aagccttaga aagacccagg agttccaaac agtgctccct ttaaggaggc tcttcttagg  
360  
gaagctgagc taaggaaaca gaggcttgaa gaactaaac agcagcagaa acttgacagg  
420  
cagaaggaaac tagaaaagaa aagaaaactt gaaactaatc ctgatattaa gnccatcaaa  
480  
tgtggaaccn ntatggaaaa ggagtttggg ctttgcaaaa ctgagaacaa agccaagtcg  
540  
ggcaaacaga attcaaagaa gctgtactgc caagaactta aaaagggtgat tgaagcctcc  
600  
gatgttgtcc tagagggtgt ggatgccaga gatcctcttg gttgcagatg tcctcaggta  
660  
gaagaggcca ttgtccagag tggacagaaa aagctggtac ttatattaaa taaatcagat  
720  
ctggtaccaa aggagaattt ggagagctgg ctaaattatt tgaagaaaga attgccaaca  
780  
gtggtgttca gagcctcaac aaaaccaaag gataaaggga agataacca gcggtgtgaag  
840  
gcaaagaaga atgctgctcc attcagaagt gaagtctgct ttgggaaaga gggcctttgg  
900  
aaacttcttg gaggttttca ggaaacttgc agcaaagcca ttcgggttgg agtaattggt  
960  
ttcccaaatg tggggaaaag cagcattatc aatagcttaa aacaagaaca gatgtgtaat  
1020  
gttggtgtat ccatggggct tacaaggagc atgcaagttg tcccttgga caaacagatc  
1080  
acaatcatag atagtcagag cttcatcgta tctccactta attcctctc tgcgcttgct  
1140  
ctgcgaagtc cagcaagtat tgaagtagta aaaccgatgg aggctgccag tgccatcctt  
1200  
tcccaggctg atgctcgaca ggtagtactg aaatatactg tcccaggcta caggaattct  
1260  
ctggaatttt ttactgtgct tgctcagaga agaggatgc accaaaaagg tggaatccca  
1320  
aatgttgaag gtgctgcaa actgctgtgg tctgagtga caggtgcctc attagcttac  
1380  
tattgccatc cccctacatc ttggactcct cctccatatt ttaatgagag tattgtggtg  
1440

gacatgaaaa gcggcttcaa tctggaagaa ctggaaaaga acaatgcaca gagcataaga  
 1500  
 gccatcaagg gccctcattt ggccaatagc atccttttcc agtcttccgg tctgacaaat  
 1560  
 ggaataatag aagaaaagga catacatgaa gaattgccaa aacggaaaga aaggaagcag  
 1620  
 gaggagaggg aggatgacaa agacagtgc caggaaactg ttgatgaaga agttgatgaa  
 1680  
 aacagctcag gcatgtttgc tgcagaagag acaggggagg cactgtctga ggagactaca  
 1740  
 gcagggtgaac agtctacaag gtcttttattc ttggataaaa tcattgaaga ggatgatgct  
 1800  
 tatgacttca gtacagatta tgtgtaacag aacaatggct ttttatgatt tttttttta  
 1860  
 acattttaag cagactgcta aactgttctc tgtataagtt atggatgca tgagctgtgt  
 1920  
 aaattttgtg aatatgtatt atattaaaac caggcaactt ggaatcccta aattctgtaa  
 1980  
 aaagacaatt catctcattg tgagtggaag tagttatctg gaataaaaaa agaagatacc  
 2040  
 tattgaaaaa aaaaaaaaaa aaaaaaaaaa aaa  
 2073

<210> 6138  
 <211> 550  
 <212> PRT  
 <213> Homo sapiens

<400> 6138  
 Met Lys Arg Pro Lys Leu Lys Lys Ala Ser Lys Arg Met Thr Cys His  
 1 5 10 15  
 Lys Arg Tyr Lys Ile Gln Lys Lys Val Arg Glu His His Arg Lys Leu  
 20 25 30  
 Arg Lys Glu Ala Lys Lys Gln Gly His Lys Lys Pro Arg Lys Asp Pro  
 35 40 45  
 Gly Val Pro Asn Ser Ala Pro Phe Lys Glu Ala Leu Arg Glu Ala  
 50 55 60  
 Glu Leu Arg Lys Gln Arg Leu Glu Glu Leu Lys Gln Gln Lys Leu  
 65 70 75 80  
 Asp Arg Gln Lys Glu Leu Glu Lys Lys Arg Lys Leu Glu Thr Asn Pro  
 85 90 95  
 Asp Ile Lys Xaa Ile Lys Cys Gly Thr Xaa Met Glu Lys Glu Phe Gly  
 100 105 110  
 Leu Cys Lys Thr Glu Asn Lys Ala Lys Ser Gly Lys Gln Asn Ser Lys  
 115 120 125  
 Lys Leu Tyr Cys Gln Glu Leu Lys Lys Val Ile Glu Ala Ser Asp Val  
 130 135 140  
 Val Leu Glu Val Leu Asp Ala Arg Asp Pro Leu Gly Cys Arg Cys Pro  
 145 150 155 160  
 Gln Val Glu Glu Ala Ile Val Gln Ser Gly Gln Lys Lys Leu Val Leu  
 165 170 175  
 Ile Leu Asn Lys Ser Asp Leu Val Pro Lys Glu Asn Leu Glu Ser Trp  
 180 185 190  
 Leu Asn Tyr Leu Lys Lys Glu Leu Pro Thr Val Val Phe Arg Ala Ser

```

      195              200              205
Thr Lys Pro Lys Asp Lys Gly Lys Ile Thr Lys Arg Val Lys Ala Lys
210              215              220
Lys Asn Ala Ala Pro Phe Arg Ser Glu Val Cys Phe Gly Lys Glu Gly
225              230              235              240
Leu Trp Lys Leu Leu Gly Gly Phe Gln Glu Thr Cys Ser Lys Ala Ile
      245              250              255
Arg Val Gly Val Ile Gly Phe Pro Asn Val Gly Lys Ser Ser Ile Ile
      260              265              270
Asn Ser Leu Lys Gln Glu Gln Met Cys Asn Val Gly Val Ser Met Gly
      275              280              285
Leu Thr Arg Ser Met Gln Val Val Pro Leu Asp Lys Gln Ile Thr Ile
      290              295              300
Ile Asp Ser Pro Ser Phe Ile Val Ser Pro Leu Asn Ser Ser Ser Ala
305              310              315              320
Leu Ala Leu Arg Ser Pro Ala Ser Ile Glu Val Val Lys Pro Met Glu
      325              330              335
Ala Ala Ser Ala Ile Leu Ser Gln Ala Asp Ala Arg Gln Val Val Leu
      340              345              350
Lys Tyr Thr Val Pro Gly Tyr Arg Asn Ser Leu Glu Phe Phe Thr Val
      355              360              365
Leu Ala Gln Arg Arg Gly Met His Gln Lys Gly Gly Ile Pro Asn Val
      370              375              380
Glu Gly Ala Ala Lys Leu Leu Trp Ser Glu Trp Thr Gly Ala Ser Leu
      385              390              395              400
Ala Tyr Tyr Cys His Pro Pro Thr Ser Trp Thr Pro Pro Pro Tyr Phe
      405              410              415
Asn Glu Ser Ile Val Val Asp Met Lys Ser Gly Phe Asn Leu Glu Glu
      420              425              430
Leu Glu Lys Asn Asn Ala Gln Ser Ile Arg Ala Ile Lys Gly Pro His
      435              440              445
Leu Ala Asn Ser Ile Leu Phe Gln Ser Ser Gly Leu Thr Asn Gly Ile
      450              455              460
Ile Glu Glu Lys Asp Ile His Glu Glu Leu Pro Lys Arg Lys Glu Arg
      465              470              475              480
Lys Gln Glu Glu Arg Glu Asp Asp Lys Asp Ser Asp Gln Glu Thr Val
      485              490              495
Asp Glu Glu Val Asp Glu Asn Ser Ser Gly Met Phe Ala Ala Glu Glu
      500              505              510
Thr Gly Glu Ala Leu Ser Glu Glu Thr Thr Ala Gly Glu Gln Ser Thr
      515              520              525
Arg Ser Phe Ile Leu Asp Lys Ile Ile Glu Glu Asp Asp Ala Tyr Asp
      530              535              540
Phe Ser Thr Asp Tyr Val
545              550

```

&lt;210&gt; 6139

&lt;211&gt; 2249

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6139

nncggccgca ggggcccggc ctgtcgcagc ccgtccgcct cgctcatggt acgggcgcca  
60

gcctcaccgc cagaaaccac ctcacactga gcggcgccgg ctccagactcc acaggctcgtc  
120  
acagacgatg atggccaggc cccggaggct aaggacggca gctcccttag cggcagagtt  
180  
ttccgagtgga ccttcttgat gctggctgtt tctctcaccg ttcccctgct tggagccatg  
240  
atgtgctggg aatctcctat agatccacag cctctcagct tcaaagaacc cccgctcttg  
300  
cttgggtgtt tgcattccaa tacgaagctg cgacaggcag aaaggctgtt tgaaaatcaa  
360  
cttgttggac cggagtcctat agcacatatt ggggatgtga tgtttactgg gacagcagat  
420  
ggccggggtcg taaaacttga aaatgggtgaa atagagacca ttgcccggtt tnggttcggg  
480  
cccnnttgca aaaccggaga tgatgagcct gtgtgtggga gacccctggg tatccgtgca  
540  
gggccaatg ggactctctt tgtggccgat gcatacaagg gactatttga agtaaatccc  
600  
tggaaacgtg aagtgaact gctgctgtcc tccgagacac ccattgaggg gaagaacatg  
660  
tccttttgta atgatcttac agtcactcag gatgggagga agatttattt caccgattct  
720  
agcagcaaat ggcaaagacg agactacctg cttctggtga tggagggcac agatgacggg  
780  
cgcttgctgg agtatgatac tgtgaccagg gaagtaaaag ttttattgga ccagctgcgg  
840  
ttcccgaatg gagtccagct gtctcctgca gaagactttg tcctggtggc agaaacaacc  
900  
atggccagga tacgaagagt ctacgtttct ggctgatga agggcggggc tgatctgttt  
960  
gtggagaaca tgcttgatt tccagacaac atccggccca gcagctcttg ggggtactgg  
1020  
gtgggcatgt cgaccatccg ccctaaccct gggttttcca tgttgattt ctatctgag  
1080  
agaccctgga ttaaaaggat gatttttaag ggaagctgcg ctggttgta tctgctctt  
1140  
agtcaagaga cggatgatga gtttgtgccg cggtagagcc tcgtcctaga actcagcgac  
1200  
agcgggtgcct tccggagaag cctgcatgat cccgatgggc tgggtggccac ctacatcagc  
1260  
gaggtgcacg aacacgatgg gcacctgtac ctgggctctt tcaggtcccc ctctctctgc  
1320  
agactcagcc tccaggtgtt ttagccctcc cagatagctg cccctgccac gcaggccagg  
1380  
agtcttcaca ctcaggcacc aggcctggtc caggaggagc tgtggacaca gtcgtgggtc  
1440  
aagtgtccac atgcacctgt tagtccctga gaggtgggtg gaattggctg ttcattcctc  
1500  
gaggatgccc gggccccacc tgggcttgtc tttctgttta gaggggaagt taacatatct  
1560  
gccatgagga acataaaatc atgtaaagcc attttctctt aaacaaaaca aaactttcta  
1620  
agtacagtca ttctctagga ttgggaagc tccttgcact tggaacaggg ctccaggtggg  
1680

tggagcagta aggcactacc cagagagctt gctgctgcgg ccctgtcctg cggcctcaaa  
 1740  
 gttcttcttt actatatata acgtgcggtc atacctttct tegtgtggt ggggatggaa  
 1800  
 gagcagaggg agcatggccc aggggtgttg aggccagcgg tgagagccgt gttagccaag  
 1860  
 acatggaact gtgttctcaa gggttatgtg gggcgtgggc tctccatagt gtgtatgaaa  
 1920  
 agcttggtga ctctagcggc tcagagagga ctttgcctggg tttctttctg tgaatatctc  
 1980  
 cgtgctgacc atgctggaat tggatgattc tgcaattcgg gacctactgc aggggtccgt  
 2040  
 ttagtaacgt cttgtctgtg atctttgttc ttgacctcta gaccccaaga tgtgaacagt  
 2100  
 gcacgtgtta atgtcatctt tgctcatgtg ttataagccc caagttgctg tatattttca  
 2160  
 caagtatgtc tacacactgg tcatgatttt gataataaat aacgataaat cgacttctgc  
 2220  
 tgattaacct ttaaaaaaaaa aaaaaaaaaa  
 2249

<210> 6140

<211> 381

<212> PRT

<213> Homo sapiens

<400> 6140

Met Leu Ala Val Ser Leu Thr Val Pro Leu Leu Gly Ala Met Met Leu  
 1 5 10 15  
 Leu Glu Ser Pro Ile Asp Pro Gln Pro Leu Ser Phe Lys Glu Pro Pro  
 20 25 30  
 Leu Leu Leu Gly Val Leu His Pro Asn Thr Lys Leu Arg Gln Ala Glu  
 35 40 45  
 Arg Leu Phe Glu Asn Gln Leu Val Gly Pro Glu Ser Ile Ala His Ile  
 50 55 60  
 Gly Asp Val Met Phe Thr Gly Thr Ala Asp Gly Arg Val Val Lys Leu  
 65 70 75 80  
 Glu Asn Gly Glu Ile Glu Thr Ile Ala Arg Phe Xaa Phe Gly Pro Xaa  
 85 90 95  
 Cys Lys Thr Arg Asp Asp Glu Pro Val Cys Gly Arg Pro Leu Gly Ile  
 100 105 110  
 Arg Ala Gly Pro Asn Gly Thr Leu Phe Val Ala Asp Ala Tyr Lys Gly  
 115 120 125  
 Leu Phe Glu Val Asn Pro Trp Lys Arg Glu Val Lys Leu Leu Leu Ser  
 130 135 140  
 Ser Glu Thr Pro Ile Glu Gly Lys Asn Met Ser Phe Val Asn Asp Leu  
 145 150 155 160  
 Thr Val Thr Gln Asp Gly Arg Lys Ile Tyr Phe Thr Asp Ser Ser Ser  
 165 170 175  
 Lys Trp Gln Arg Arg Asp Tyr Leu Leu Leu Val Met Glu Gly Thr Asp  
 180 185 190  
 Asp Gly Arg Leu Leu Glu Tyr Asp Thr Val Thr Arg Glu Val Lys Val  
 195 200 205  
 Leu Leu Asp Gln Leu Arg Phe Pro Asn Gly Val Gln Leu Ser Pro Ala

210	215	220
Glu Asp Phe Val Leu Val Ala Glu Thr Thr Met Ala Arg Ile Arg Arg		
225	230	235
Val Tyr Val Ser Gly Leu Met Lys Gly Gly Ala Asp Leu Phe Val Glu		240
	245	250
Asn Met Pro Gly Phe Pro Asp Asn Ile Arg Pro Ser Ser Ser Gly Gly		255
	260	265
Tyr Trp Val Gly Met Ser Thr Ile Arg Pro Asn Pro Gly Phe Ser Met		270
	275	280
Leu Asp Phe Leu Ser Glu Arg Pro Trp Ile Lys Arg Met Ile Phe Lys		285
	290	295
Gly Ser Cys Ala Gly Cys Asp Leu Leu Phe Ser Gln Glu Thr Val Met		300
305	310	315
Lys Phe Val Pro Arg Tyr Ser Leu Val Leu Glu Leu Ser Asp Ser Gly		320
	325	330
Ala Phe Arg Arg Ser Leu His Asp Pro Asp Gly Leu Val Ala Thr Tyr		335
	340	345
Ile Ser Glu Val His Glu His Asp Gly His Leu Tyr Leu Gly Ser Phe		350
	355	360
Arg Ser Pro Phe Leu Cys Arg Leu Ser Leu Gln Ala Val		365
370	375	380

<210> 6141  
 <211> 5651  
 <212> DNA  
 <213> Homo sapiens

<400> 6141  
 ctctgccacc tctctagcct gggcaactgg gggcgccccg gacgaccatg agagataagg  
 60  
 actgagggcc aggaagggga agcgagcccg ccgagagggtg gcggggactg ctcacgcca  
 120  
 gggccacagc ggccgcgctc cggcctcgct ccgcccctcc acgcctcgcg ggatccgcgg  
 180  
 gggcagcccc gccggggcggg gatgccgggg ctggggcgga gggcgagtg gctgtgctgg  
 240  
 tgggtggggc tgctgtgcag ctgctgcggg ccccccgcgc tgcggccgccc cttgcccgct  
 300  
 gccgcggccg ccgcccgcgg ggggcagctg ctgggggacg gcgggagccc cggccgcacg  
 360  
 gagcagccgc cgccgtcgcc gcagtcctcc tcgggcttcc tgtaccggcg gctcaagacg  
 420  
 caggagaagc gggagatgca gaaggagatc ttgtcgggtg tggggctccc gcaccggccc  
 480  
 cggccccctg acggcctcca acagccgcag ccccccggcg tccggcagca ggaggagcag  
 540  
 cagcagcagc agcagctgcc tcgaggagag cccctcccg ggcgactgaa gtccgcgccc  
 600  
 ctcttcatgc tggatctgta caacgccctg tccgccgaca acgacgagga cggggcgtcg  
 660  
 gagggggaga ggcagcagtc ctggcccccac gaagcagcca gctcgtccca gcgtcggcag  
 720  
 ccgcccccg gcgcgcgca cccgctcaac cgcaagagcc ttctggcccc cggatctggc  
 780

agcggcggcg cgccccact gaccagcgcg caggacagcg ccttcctcaa cgacgcggac  
840  
atgggtcatga gctttgtgaa cctgggtggag tacgacaagg agttctcccc tcgtcagcga  
900  
caccacaaag agttcaagtt caacttatcc cagattcctg aggggtgggt ggtgacggct  
960  
gcagaattcc gcattctaca ggactgtgtt atggggagtt ttaaaaacca aacttttctt  
1020  
atcagcattt atcaagtctt acaggagcat cagcacagag actctgacct gtttttgttg  
1080  
gacacccgtg tagtatgggc ctcagaagaa ggctggctgg aatttgacat cacggccact  
1140  
agcaatctgt gggttgtgac tccacagcat aacatggggc ttcagctgag cgtggtgaca  
1200  
agggatggag tccacgtcca ccccgagcc gcaggcctgg tgggcagaga cggcccttac  
1260  
gataagcagc ctttcatggt ggctttcttc aaagtgagtg aggtccacgt gcgcaccacc  
1320  
aggtcagcct ccagccggcg ccgacaacag agtcgtaatc gctctacca gtcccaggac  
1380  
gtggcgcggtg tctccagtgc ttcagattac aacagcagtg aattgaaaac agcctgcagg  
1440  
aagcatgagc tgtatgtgag tttccaagac ctgggatggc aggactggat cattgcaccc  
1500  
aagggtctatg ctgccaatta ctgtgatgga gaatgctcct tccactcaa cgcacacatg  
1560  
aatgcaacca accacgcgat tgtgcagacc ttggttcacc ttatgaaccc cgagtatgtc  
1620  
cccaaaccgt gctgtgcgcc aactaagcta aatgccatct cggttcttta cttcaatgac  
1680  
aattccaaaa tcaccttgaa aaaatacaga aatatggttg taagagcttg tggatattgc  
1740  
taacttgaaa ccagatgctg gggacacaca ttctgccttg gattccttgg tcatagctgc  
1800  
cttaaaaaac atacagaagc acagttaggag gtgggacgat gagactttga aactatctca  
1860  
tgctgatgcc ttactgcccg agaaaaatct taacggacct tgctaataat ttgctcactt  
1920  
ggttaagtaac atgagtagtt gttggtctgt actaagctga gtttgatgt ctgtagcata  
1980  
aggtctggta actgcagaaa cataaccgtg aagctcttcc taccctctc ccccaaaaac  
2040  
ccacaaaaat tagttttagc tgtagatcaa gctatttggg gtgtttgtta gtaaataggg  
2100  
aaaaataatct caaaggagtt aaatgtattc ttggctaaag gatcagctgg ttcagtactg  
2160  
tctatcaaa gtagatttta cagagaacag aaatcgggga agtgggggga acgcctctgt  
2220  
tcagttcatt cccagaagtc cacaggacgc acagcccagg ccacagccag ggctccacgg  
2280  
ggcgcccttg tctcagtcac tgctgttgta tgttcgtgct ggagttttgt tgggtgtaaa  
2340  
atacacttat ttcagccaaa acataccatt tctacacctc aatcctccat ttgctgtact  
2400



ctttgctagt accaaaagta gactgattac actgaggtga ggctacaagg ggtgtgtaac  
2460  
cgtgtaacac gtgaaggcaa tgctcacctc ttctttacca gaacggttct ttgaccagca  
2520  
catttaacttc tggactgccg gctctagtag cttttcagta aagtgggttct ctgccttttt  
2580  
actatacagc ataccacgcc acaggggttag aaccaacgaa gaaaataaaa tgaggggtgcc  
2640  
cagcttataa gaatgggtgtt aggggggatga gcatgctgtt tatgaacgga aatcatgatt  
2700  
tccctttagt aaagtgaggc tcagattaaa ttttagaata ttttctaaat gtctttttca  
2760  
caatcatgta ctgggaaggc aatttcatac taaactgatt aaataatata tttataatct  
2820  
acaactgttt gcacttacag ctttttttgt aaatataaac tataatttat tgtctatttt  
2880  
atatctgttt tgctgtaaca ttgaaggaaa gaccagactt ttaaaaaaaa agagttttatt  
2940  
tagaaagtat catagtgtaa acaaacaaat tgtaccactt tgattttctt ggaatacaag  
3000  
actcgtgatg caaagctgaa gttgtgtgta caagactctt gacagtgtg cttctctagg  
3060  
aggttgggtt tttttaaaaa aagaattatc tgtgaacat acgtgattaa taaagatttc  
3120  
ctttaaggca gaggctggtc gagatgctgc tgttatcttc tgccctcagac agacagtata  
3180  
agtgggtctt tttctaagat tcctaccacc agttactttg ggccaagtat ccacatcccc  
3240  
ttgctgatgg gaggtgggtg aagagtgttg gatgcaaagt ggttattatg ggaagtagct  
3300  
cgatggtaaa aggacaaaca cctatctatc ttagagctta agcctgtatg tgcttattcc  
3360  
caagggagat agaggtgttt aatcacaaag acagcatgag ttagaggaca ctggcatcaa  
3420  
cagctgccac agccgtgcac accagggcca gagcagccca ctgacatctg tctttgggtc  
3480  
tgagatcaaa tgcatcccat tcttcataca ttagaaggtc gacctccttg aagcagacca  
3540  
agtatagcaa gcctctaaaa ggactactga gaaacagaat cagaaactct agaactctag  
3600  
ttagggccct tcagcagggc tgcagagcct ccctggatc ccaggcctgg gaaagcctgt  
3660  
ctggtcttgt cccccaggc gacaaatata actggaatct ttcaatgagt taatgagata  
3720  
ctgagaatga gcctcgtgga attttccatg cctacccttt ctaaggaaga catccaacag  
3780  
ttcatgtggg ctctggcttc gtgttaacat gaggaactaa agacatgttt cccccgtga  
3840  
gaaacagaag gatccccctga acagtaactg atttgacaag tatcgacaca taaagttatg  
3900  
gcatcagcat tctcttactc aggcacggc agaagtaacg ctgctttcat cacggctaac  
3960  
ctctcacact gagagaagta ttcacagcaa cagaagctcc agcagcggcc gtgaaggat  
4020

cttccagagg tgtgggtttt tgcatttcaa tctgctccat gctacggacc aacacagtat  
4080  
tgagtcaact gtgaccttaa gatcagagga acgtcaatac tgccacaagg ccacctttcc  
4140  
agaactcgtg ggcaggtaaa ctatgctttg gatgtgcttt ctttcaccaa aatcactcaa  
4200  
ctcaggagcc acaaatagtc cagcaatttc atttccctca acgctatttt agtctcaag  
4260  
gaaaccatgt aaatttcac aagagaaggc caaaggggat atatcgccac tgaatatgtt  
4320  
tacacagtga ccatgagtta cacatttact tagagaaact taacttaata aagaatctgt  
4380  
agagtgtgtt ggcttggaac acacacacac aaagaagata cctcacgctt agtatgttct  
4440  
gctttctgaa cagccaccac tgggaacca gtggcctctg tgggactgaa ctccataacg  
4500  
cagggtgctg gagctgggca ggagaggtga cctccaactg tgttcctaaa gttcgtcttt  
4560  
cgcttggctc aggacaaagc ggtgtaacga gtcaaggctc ctgcctccac tgtgctcact  
4620  
gactttcttc cctcctcgga aaagcaataa cgtggggtag cctcgtaccg aatacttgct  
4680  
gcagatatcc cgttcagcag tgcagtctac ttcggcgatc ttgacccccg ccagaccag  
4740  
gaattccttt ttagagagtt cctcccaagt aggagccaga gtcttacaat gaccacacca  
4800  
tggagcataa aacttgatga aggttattcc ttctgcaatg gtgtcatcga agttattttc  
4860  
agtgagtgc aacacagtgc ccttgtcagc ctccggctca gctgccagca ccggggcctc  
4920  
tgagggcgct acggtctccg tcgctccagt ctctgtgcgc tgcagctgcg actccacgta  
4980  
ctccctcagt gactccaaat cccgcttttc cttgtactga tccacctttt tcccatctcg  
5040  
gaaccagaga agagtgggat agccacgaac ctggtttccg gagcagagtt catagtgtg  
5100  
tgtacaatca accttgccaa tcttgacagt ttcggaatgt tcaaggccca gagccagctg  
5160  
ctcccagggt ggagccaggc ctttgacagt accacaccac ggagcgaaga acttgataaa  
5220  
gtggtcgctc tgtgcaacgt gcagctcaaa gttgcttgct gagagctcat acagcccttg  
5280  
cttgagctcg ggggactcgg gcgggtccac ttccggctct ggtgtcactg gctcctcgtt  
5340  
cagtgtctgc agcatccagt ttccagtgct ctggaagtcc cgaggaccct ggtacttcac  
5400  
agcttcttgg cctggttga aaagctttaa ggtggggtat cctcgacccc cctgggcgga  
5460  
gcacacgtcg gagtgggccc tgcagtcac tttagccaca tagactttgg catcttccat  
5520  
gctgttgtat ttgtctcca ggtcattcca agtcggctgc agccgctggc agtgtccaca  
5580  
ccagggcgcg aagaacatga cgaagtgcgc ggcgctctgg atcccgtgcg tgaacatgtc  
5640

ggccgtgtac a  
5651

<210> 6142  
<211> 513  
<212> PRT  
<213> Homo sapiens

<400> 6142  
Met Pro Gly Leu Gly Arg Arg Ala Gln Trp Leu Cys Trp Trp Trp Gly  
1 5 10 15  
Leu Leu Cys Ser Cys Cys Gly Pro Pro Leu Arg Pro Pro Leu Pro  
20 25 30  
Ala Ala Ala Ala Ala Ala Ala Gly Gly Gln Leu Leu Gly Asp Gly Gly  
35 40 45  
Ser Pro Gly Arg Thr Glu Gln Pro Pro Ser Pro Gln Ser Ser Ser  
50 55 60  
Gly Phe Leu Tyr Arg Arg Leu Lys Thr Gln Glu Lys Arg Glu Met Gln  
65 70 75 80  
Lys Glu Ile Leu Ser Val Leu Gly Leu Pro His Arg Pro Arg Pro Leu  
85 90 95  
His Gly Leu Gln Gln Pro Gln Pro Pro Ala Leu Arg Gln Gln Glu Glu  
100 105 110  
Gln Gln Gln Gln Gln Gln Leu Pro Arg Gly Glu Pro Pro Pro Gly Arg  
115 120 125  
Leu Lys Ser Ala Pro Leu Phe Met Leu Asp Leu Tyr Asn Ala Leu Ser  
130 135 140  
Ala Asp Asn Asp Glu Asp Gly Ala Ser Glu Gly Glu Arg Gln Gln Ser  
145 150 155 160  
Trp Pro His Glu Ala Ala Ser Ser Ser Gln Arg Arg Gln Pro Pro Pro  
165 170 175  
Gly Ala Ala His Pro Leu Asn Arg Lys Ser Leu Leu Ala Pro Gly Ser  
180 185 190  
Gly Ser Gly Gly Ala Ser Pro Leu Thr Ser Ala Gln Asp Ser Ala Phe  
195 200 205  
Leu Asn Asp Ala Asp Met Val Met Ser Phe Val Asn Leu Val Glu Tyr  
210 215 220  
Asp Lys Glu Phe Ser Pro Arg Gln Arg His His Lys Glu Phe Lys Phe  
225 230 235 240  
Asn Leu Ser Gln Ile Pro Glu Gly Gly Val Val Thr Ala Ala Glu Phe  
245 250 255  
Arg Ile Tyr Lys Asp Cys Val Met Gly Ser Phe Lys Asn Gln Thr Phe  
260 265 270  
Leu Ile Ser Ile Tyr Gln Val Leu Gln Glu His Gln His Arg Asp Ser  
275 280 285  
Asp Leu Phe Leu Leu Asp Thr Arg Val Val Trp Ala Ser Glu Glu Gly  
290 295 300  
Trp Leu Glu Phe Asp Ile Thr Ala Thr Ser Asn Leu Trp Val Val Thr  
305 310 315 320  
Pro Gln His Asn Met Gly Leu Gln Leu Ser Val Val Thr Arg Asp Gly  
325 330 335  
Val His Val His Pro Arg Ala Ala Gly Leu Val Gly Arg Asp Gly Pro  
340 345 350  
Tyr Asp Lys Gln Pro Phe Met Val Ala Phe Phe Lys Val Ser Glu Val

```

      355      360      365
His Val Arg Thr Thr Arg Ser Ala Ser Ser Arg Arg Arg Gln Gln Ser
      370      375      380
Arg Asn Arg Ser Thr Gln Ser Gln Asp Val Ala Arg Val Ser Ser Ala
385      390      395      400
Ser Asp Tyr Asn Ser Ser Glu Leu Lys Thr Ala Cys Arg Lys His Glu
      405      410      415
Leu Tyr Val Ser Phe Gln Asp Leu Gly Trp Gln Asp Trp Ile Ile Ala
      420      425      430
Pro Lys Gly Tyr Ala Ala Asn Tyr Cys Asp Gly Glu Cys Ser Phe Pro
      435      440      445
Leu Asn Ala His Met Asn Ala Thr Asn His Ala Ile Val Gln Thr Leu
      450      455      460
Val His Leu Met Asn Pro Glu Tyr Val Pro Lys Pro Cys Cys Ala Pro
465      470      475      480
Thr Lys Leu Asn Ala Ile Ser Val Leu Tyr Phe Asn Asp Asn Ser Lys
      485      490      495
Ile Thr Leu Lys Lys Tyr Arg Asn Met Val Val Arg Ala Cys Gly Tyr
      500      505      510
Cys

```

```

<210> 6143
<211> 1137
<212> DNA
<213> Homo sapiens

```

```

<400> 6143
tttttttttt tttttgagct gcagagcact gagctttatt taaaaacttc cacagaatcc
60
ctcaccctcc accccagggt cctccctctc tggaactcag gcagcagaca agcttgggtc
120
caccacctg cccaacctag gacagctggg cctgagctgg gcgggcaggg gattccatct
180
cctgggtgcg cctgccagag gggagaggct ggaggcgcg ggaatgctgt tctccccag
240
gagtcagtc ttagggcttc tgccgtggga cgtggggccg agggacctgg ggcactgacc
300
aggtcggggt cgggggcagc atctgcattg gtgaggccgg gtgaaaagg ctgctggtgc
360
cggacagctt ctggtgctgg gcctagcgga gacagaggac cagagggtcca ggttctctggg
420
ggctgagctt ttctcagact tcggaggaaa aatgtcccag ccagcaggc agtgccgggg
480
cagggccagt gtgtcagagg cgtcaaagct ctttcgggtg gatgtggtac cgtgctggg
540
gctccaggat cgacagcggg atgctcacc tgccagggg ggctgacgtg cgctgctgcg
600
ccaggggtccc agggccctgc tggctctcgc atgtcctgca caggcggcag ggggtaccgg
660
gatccacagg caccgggaac aggcgccgtg tgacacggtg acagtacac cattcatggt
720
cttctctcac gccgctgcca ctgctctcac gcaggcctgg caactggggg tcaggatggc
780

```

tgcagataca ctcctccttg ttggtttccc gaaactcctg cagcttgagg aagaaggcct  
 840  
 caggctggct ggtgatggaa gagctggtgt ccagagaccc tgcaatccag tcatagccca  
 900  
 ggtatggcct gaggcgccag ctcctctcag gaactgcaga ctcctcagag aaggtcaccc  
 960  
 tgggcttgga cagcttgctc tgttgagcca ggatggacct cggggtctgt gcctcctggg  
 1020  
 gtcctggatc acccagcctc cctgagggct ctgggtccct caggcttgag gtgcccagcg  
 1080  
 aggggtgctga gtgggtctc ggctcgccca gggactcctg gtgctggcat ttggcag  
 1137

<210> 6144  
 <211> 141  
 <212> PRT  
 <213> Homo sapiens

<400> 6144  
 Phe Phe Phe Phe Phe Glu Leu Gln Ser Thr Glu Leu Tyr Leu Gln Thr  
 1 5 10 15  
 Ser Thr Glu Ser Leu Thr Leu His Pro Arg Val Leu Pro Leu Trp Asn  
 20 25 30  
 Ser Gly Ser Arg Gln Ala Trp Val His Pro Pro Ala Gln Pro Arg Thr  
 35 40 45  
 Ala Gly Pro Glu Leu Gly Gly Gln Gly Ile Pro Ser Pro Gly Cys Ala  
 50 55 60  
 Cys Gln Arg Gly Glu Ala Gly Gly Gly Asn Ala Val Leu Pro Gln  
 65 70 75 80  
 Glu Ser Val Leu Arg Ala Ser Ala Val Gly Arg Gly Ala Glu Gly Pro  
 85 90 95  
 Gly Ala Leu Thr Arg Ser Gly Ser Gly Ala Ala Ser Ala Leu Val Arg  
 100 105 110  
 Pro Gly Glu Lys Gly Cys Trp Cys Arg Thr Ala Ser Gly Ala Gly Pro  
 115 120 125  
 Ser Gly Asp Arg Gly Pro Glu Val Gln Val Pro Gly Gly  
 130 135 140

<210> 6145  
 <211> 766  
 <212> DNA  
 <213> Homo sapiens

<400> 6145  
 nacaagggtc cagcctcctc tcctggggtc cagcttgctg cctctggctc acctgttcct  
 60  
 agagcaatgt cttcccagca gcagcagcgg caggcagcag tgcccacccc agaggcccag  
 120  
 cagcagcaag tgaagcagcc ttgtcagcca cccctgttta aatgtcaaga gacatgtgca  
 180  
 cccaaaacca aggatccatg tgctccccag gtcaagaagc aatgccacc gaaagacacc  
 240  
 atcattccag ccagcagaa gtgtccctca gccagcaag cctccaagag caaacagaag  
 300

taaggatgga ctggatatta ccatcatcca ccatcctggc taccagatgg aaccttctct  
 360  
 tcttctctct cctcttcctt ccagctcttg agcctaccct cctctcacat ctctcctgc  
 420  
 ccaagatgta aggaagcatt gtaaggattt cttcccatcg tacccttccc cacacatacc  
 480  
 accttggtct cttctatatc ccaccccgat gctctcccag gtgggtgtga gagagacctc  
 540  
 attctctgca ggctccagcg tggccacagc taaggcccat ccatttccca aagtgaggaa  
 600  
 agtgctctggg cttcttctgg ggtccacccc tgacaagtag ggtcacagag gctggtgcac  
 660  
 agtttctgcc tcattctctt ccatgatgcc cctgctctg ggcttctctc ctgttttccc  
 720  
 caataaatat gtgcctcatg taataaatgt gtctgcttcc tggggt  
 766

<210> 6146  
 <211> 100  
 <212> PRT  
 <213> Homo sapiens

<400> 6146  
 Xaa Lys Gly Ser Ala Ser Ser Pro Gly Val Gln Leu Val Ala Ser Gly  
 1 5 10 15  
 Ser Pro Val Pro Arg Ala Met Ser Ser Gln Gln Gln Arg Gln Ala  
 20 25 30  
 Ala Val Pro Thr Pro Glu Ala Gln Gln Gln Val Lys Gln Pro Cys  
 35 40 45  
 Gln Pro Pro Pro Val Lys Cys Gln Glu Thr Cys Ala Pro Lys Thr Lys  
 50 55 60  
 Asp Pro Cys Ala Pro Gln Val Lys Lys Gln Cys Pro Pro Lys Asp Thr  
 65 70 75 80  
 Ile Ile Pro Ala Gln Gln Lys Cys Pro Ser Ala Gln Gln Ala Ser Lys  
 85 90 95  
 Ser Lys Gln Lys  
 100

<210> 6147  
 <211> 1852  
 <212> DNA  
 <213> Homo sapiens

<400> 6147  
 ntgctaactc aaggagctac tgtacttaaa aacatgcaaa atatgttgta tttgtggcat  
 60  
 agttcatatt tacactatca taaaattatg gccgagaagt taaatattct aaatgtgtca  
 120  
 acatagtctt ctgtaaaact gacttacttt ccaaatatat tttgaaataa aacaatataa  
 180  
 aaatgttttc tgtttttagg aatggtggaa agcagcagac ataattggag tgggttgat  
 240  
 aagcaaagtg atattcaaaa tttaaatgaa gagagaatct tagctttaca gctttgtggg  
 300

tggataaaga aaggaacgga tgtagacgtg gggccatttt tgaactccct tgtacaagaa  
360  
ggggaatggg aaagagctgc tgctgtggca ttgttcaact tggatattcg ccgagcaatc  
420  
caaatcctga atgaaggggc atcttctgaa aaaggagatc tgaatctcaa tgtggtagca  
480  
atggccttat cgggttatac ggatgagaag aactcccttt ggagagaaat gtgtagcaca  
540  
ctgcgattac agctaaataa cccgtatttg tgtgtcatgt ttgcatttct gacaagtga  
600  
acaggatcct acgatggagt tttgtatgaa aacaaagtgt cagtacgtga cagagtggca  
660  
tttgccttga aattccttag tgatactcag ttaaatagat acatcgaaaa gttgaccaat  
720  
gaaatgaaag aggctggaaa tttggaagga attttgctta caggccttac taaagatgga  
780  
gtggacttaa tggagagtta tgttgataga actggagatg ttcaaacagc aagtactgt  
840  
atgttacagg gttcaccttt agatgttctt aaagatgaaa gggttcagta ctggattgag  
900  
aattatagaa atttattaga tgcctggagg ttttggcata aacgagctga atttgatatt  
960  
cacaggagta agttggatcc cagttccaag ccttttagcac aagtttttgt gagttgcaat  
1020  
ttctgtggca agtcaatctc ctacagctgt tcagctgtgc tcatcaggg cagaggtttt  
1080  
agtcagtatg gtgtgagtg ctcaccaacg aaatctaaag tcacaagtgt tcctggctgt  
1140  
cgaaaaccac ttcctcgatg tgcgctttgt ctcatataa tgggaacacc agtttctagc  
1200  
tgtcctggag gaaccaaac agatgaaaaa gtggacttga gcaaggacaa aaaattagcc  
1260  
caatttaaca actggtttac atggtgtcat aattgcaggc acggtggaca tgctggacat  
1320  
atgcttagtt gggtcaggga ccatgcagag tgcctgtgt ctgcatgcac gtgtaaatgt  
1380  
atgcagttgg atacaacggg gaatctggta cctgcagaga ctgtccagcc ataaaaatgt  
1440  
accaccttaa gagaaccctt caagtgtgga gctttctagt aggtgtcctt catagctcag  
1500  
aaacatacct cagaacaagc cattcatgac ttacctgtaa tgggaaaaa aatcattcta  
1560  
tcagatcagc agttttgatg tttgagtgt tttgatatgc ttcacagaga caaatgctgc  
1620  
caaaataaac atcgaagtat agacatgagt tctgttcagc aggttgaaaa gtctgattta  
1680  
gaaaaacttt ctaagttttg gttgaaatta tgaacactct agaagcagaa tttctggaag  
1740  
agccaagaac agacttttag cctatatctt caaagctgaa actggatata tttcaataaa  
1800  
atatgtgcac ttttaaaata aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aa  
1852

&lt;210&gt; 6148

&lt;211&gt; 410

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6148

```

Met Val Glu Ser Ser Arg His Asn Trp Ser Gly Leu Asp Lys Gln Ser
 1          5          10          15
Asp Ile Gln Asn Leu Asn Glu Glu Arg Ile Leu Ala Leu Gln Leu Cys
          20          25          30
Gly Trp Ile Lys Lys Gly Thr Asp Val Asp Val Gly Pro Phe Leu Asn
          35          40          45
Ser Leu Val Gln Glu Gly Glu Trp Glu Arg Ala Ala Val Ala Leu
          50          55          60
Phe Asn Leu Asp Ile Arg Arg Ala Ile Gln Ile Leu Asn Glu Gly Ala
          65          70          75          80
Ser Ser Glu Lys Gly Asp Leu Asn Leu Asn Val Val Ala Met Ala Leu
          85          90          95
Ser Gly Tyr Thr Asp Glu Lys Asn Ser Leu Trp Arg Glu Met Cys Ser
          100          105          110
Thr Leu Arg Leu Gln Leu Asn Asn Pro Tyr Leu Cys Val Met Phe Ala
          115          120          125
Phe Leu Thr Ser Glu Thr Gly Ser Tyr Asp Gly Val Leu Tyr Glu Asn
          130          135          140
Lys Val Ala Val Arg Asp Arg Val Ala Phe Ala Cys Lys Phe Leu Ser
          145          150          155          160
Asp Thr Gln Leu Asn Arg Tyr Ile Glu Lys Leu Thr Asn Glu Met Lys
          165          170          175
Glu Ala Gly Asn Leu Glu Gly Ile Leu Leu Thr Gly Leu Thr Lys Asp
          180          185          190
Gly Val Asp Leu Met Glu Ser Tyr Val Asp Arg Thr Gly Asp Val Gln
          195          200          205
Thr Ala Ser Tyr Cys Met Leu Gln Gly Ser Pro Leu Asp Val Leu Lys
          210          215          220
Asp Glu Arg Val Gln Tyr Trp Ile Glu Asn Tyr Arg Asn Leu Leu Asp
          225          230          235          240
Ala Trp Arg Phe Trp His Lys Arg Ala Glu Phe Asp Ile His Arg Ser
          245          250          255
Lys Leu Asp Pro Ser Ser Lys Pro Leu Ala Gln Val Phe Val Ser Cys
          260          265          270
Asn Phe Cys Gly Lys Ser Ile Ser Tyr Ser Cys Ser Ala Val Pro His
          275          280          285
Gln Gly Arg Gly Phe Ser Gln Tyr Gly Val Ser Gly Ser Pro Thr Lys
          290          295          300
Ser Lys Val Thr Ser Cys Pro Gly Cys Arg Lys Pro Leu Pro Arg Cys
          305          310          315          320
Ala Leu Cys Leu Ile Asn Met Gly Thr Pro Val Ser Ser Cys Pro Gly
          325          330          335
Gly Thr Lys Ser Asp Glu Lys Val Asp Leu Ser Lys Asp Lys Lys Leu
          340          345          350
Ala Gln Phe Asn Asn Trp Phe Thr Trp Cys His Asn Cys Arg His Gly
          355          360          365
Gly His Ala Gly His Met Leu Ser Trp Phe Arg Asp His Ala Glu Cys
          370          375          380
Pro Val Ser Ala Cys Thr Cys Lys Cys Met Gln Leu Asp Thr Thr Gly

```



385	390				395				400				
Asn	Leu	Val	Pro	Ala	Glu	Thr	Val	Gln	Pro				
				405				410					
<p>&lt;210&gt; 6149</p> <p>&lt;211&gt; 1949</p> <p>&lt;212&gt; DNA</p> <p>&lt;213&gt; Homo sapiens</p>													
<p>&lt;400&gt; 6149</p> <p>nggccgcggg ctgcatgggc agcgcccgcg ccccgccgct gagccgtcgc ggagccgcgc</p> <p>60</p> <p>agccctcggga gcacgaatat atacagccct gctctgggac acacctccat tggatttaaa</p> <p>120</p> <p>agacagtcct cgtcagcact gacttttcagc tatggaatcg cagacggttg atgatgaagc</p> <p>180</p> <p>gccggcccggtg taaatgaaga tcgggtgagg agcaggacga tgcccaaggg tgggtgcctt</p> <p>240</p> <p>aaagcaccac agcaggaaga gcttccccctc agcagcgaca tgggtggagaa gcagactggg</p> <p>300</p> <p>aaaaaggata aagataaaat ttctctaacc aagaccccaa aactggagcg tggcgatggc</p> <p>360</p> <p>gggaaggagg tgaggggagcg agccagcaag cggaagctgc ccttcaccgc gggcgccaat</p> <p>420</p> <p>ggggagcaga aggactcggg cacagagaag caggggccctg agcgggaagag gattaagaag</p> <p>480</p> <p>gagcctgtca cccggaaggc cgggctgctg ttggcatg ggctgtctgg aatccgagcc</p> <p>540</p> <p>ggctaccccc tctccgagcg ccagcaggtg gcccttctca tgcagatgac ggccgaggag</p> <p>600</p> <p>tctgccaaaca gccccagtga cacaacacca aagcaccctt cccagtctac agtgtgtcag</p> <p>660</p> <p>aagggaacgc ccaactctgc ctcaaaaacc aaagataaac tgaacaagag aaacgagcgt</p> <p>720</p> <p>ggagagaccc gcctgcaccg agccgccatc cgcggggagc cccggcgcat caaagagctc</p> <p>780</p> <p>atcagcgagg gggcagacgt caacgtcaag gacttcgcag gctgcacggc gctgcacgag</p> <p>840</p> <p>gcctgtaacc ggggctacta cgacgtcgcg aagcagctgc tggctgcagg tgcggagggtg</p> <p>900</p> <p>aacaccaagg gcctagatga cgacacgcct ttgcacgacg ctgccaaaca cgggcactac</p> <p>960</p> <p>aaagtgtgtga agctgctgct gcggtacgga gggaaccgcg agcagagcaa caggaaaggc</p> <p>1020</p> <p>gagacgccgc tgaagtggc caactcccc acgatggtga acctcctgtt aggcaaaggc</p> <p>1080</p> <p>acttacactt ccagcgagga gagctcgacg gagagtctcag aagaggaaga cgcaccatcc</p> <p>1140</p> <p>ttcgcacctt ccagttcagt cgacgggcaac aacacggact ccgagttcga aaaaggcctc</p> <p>1200</p> <p>aagcacaagg ccaagaaccc agagccacag aaggccacgg ccccgctcaa ggacgagtat</p> <p>1260</p> <p>gagtttgatg aggacgacga gcaggacagg gttcctccgg tggacgacaa gcacctattg</p> <p>1320</p>													

aaaaaggact acagaaaaga aacgaaatcc aatagtttta tctctatacc caaaatggag  
 1380  
 gttaaaagtt acactaaaaa taacacgatt gcaccaaaga aagcgtccca tcgtatcctg  
 1440  
 tcagacacgt cggacgagga ggacgcgagt gtcaccgtgg ggacaggaga gaagctgaga  
 1500  
 ctctcggcac atacgatatt gcctggtagt aagacacgag agccttctaa tgccaagcag  
 1560  
 cagaaggaaa aaaataaagt gaaaaagaag cgaaagaaag aaacaaaagg cagagagggt  
 1620  
 cgcttcggaa agcggagcna tagttctgct cctcggagtc ggagagcgag tcctcagaga  
 1680  
 gtggggagga tgacagggac tctctgggga gctctggctg cctcaagggg tccccgctgg  
 1740  
 tgctgaagga cccctccctg ttcagctccc tctctgctc ctccacctg tctcacggga  
 1800  
 gctctgccgc ccagaagcag aaccccagcc acacagacca gcacaccaag cactggcgga  
 1860  
 cagacaattg gaaaaccatt tcttccccgg cttggtcaga ggtcagtctt ttatcagact  
 1920  
 ccacaaggac gagactgaca agcgagttc  
 1949

<210> 6150

<211> 508

<212> PRT

<213> Homo sapiens

<400> 6150

Met	Pro	Lys	Gly	Gly	Cys	Pro	Lys	Ala	Pro	Gln	Gln	Glu	Glu	Leu	Pro
1				5				10						15	
Leu	Ser	Ser	Asp	Met	Val	Glu	Lys	Gln	Thr	Gly	Lys	Lys	Asp	Lys	Asp
			20					25					30		
Lys	Val	Ser	Leu	Thr	Lys	Thr	Pro	Lys	Leu	Glu	Arg	Gly	Asp	Gly	Gly
		35					40					45			
Lys	Glu	Val	Arg	Glu	Arg	Ala	Ser	Lys	Arg	Lys	Leu	Pro	Phe	Thr	Ala
		50				55					60				
Gly	Ala	Asn	Gly	Glu	Gln	Lys	Asp	Ser	Asp	Thr	Glu	Lys	Gln	Gly	Pro
65					70					75				80	
Glu	Arg	Lys	Arg	Ile	Lys	Lys	Glu	Pro	Val	Thr	Arg	Lys	Ala	Gly	Leu
			85					90						95	
Leu	Phe	Gly	Met	Gly	Leu	Ser	Gly	Ile	Arg	Ala	Gly	Tyr	Pro	Leu	Ser
		100						105					110		
Glu	Arg	Gln	Gln	Val	Ala	Leu	Leu	Met	Gln	Met	Thr	Ala	Glu	Glu	Ser
		115				120						125			
Ala	Asn	Ser	Pro	Val	Asp	Thr	Thr	Pro	Lys	His	Pro	Ser	Gln	Ser	Thr
130						135						140			
Val	Cys	Gln	Lys	Gly	Thr	Pro	Asn	Ser	Ala	Ser	Lys	Thr	Lys	Asp	Lys
145					150						155				160
Leu	Asn	Lys	Arg	Asn	Glu	Arg	Gly	Glu	Thr	Arg	Leu	His	Arg	Ala	Ala
			165						170					175	
Ile	Arg	Gly	Asp	Ala	Arg	Arg	Ile	Lys	Glu	Leu	Ile	Ser	Glu	Gly	Ala
		180						185					190		
Asp	Val	Asn	Val	Lys	Asp	Phe	Ala	Gly	Trp	Thr	Ala	Leu	His	Glu	Ala

```

      195      200      205
Cys Asn Arg Gly Tyr Tyr Asp Val Ala Lys Gln Leu Leu Ala Ala Gly
  210      215      220
Ala Glu Val Asn Thr Lys Gly Leu Asp Asp Asp Thr Pro Leu His Asp
  225      230      235      240
Ala Ala Asn Asn Gly His Tyr Lys Val Val Lys Leu Leu Leu Arg Tyr
      245      250      255
Gly Gly Asn Pro Gln Gln Ser Asn Arg Lys Gly Glu Thr Pro Leu Lys
  260      265      270
Val Ala Asn Ser Pro Thr Met Val Asn Leu Leu Leu Gly Lys Gly Thr
  275      280      285
Tyr Thr Ser Ser Glu Glu Ser Ser Thr Glu Ser Ser Glu Glu Glu Asp
  290      295      300
Ala Pro Ser Phe Ala Pro Ser Ser Ser Val Asp Gly Asn Asn Thr Asp
  305      310      315      320
Ser Glu Phe Glu Lys Gly Leu Lys His Lys Ala Lys Asn Pro Glu Pro
      325      330      335
Gln Lys Ala Thr Ala Pro Val Lys Asp Glu Tyr Glu Phe Asp Glu Asp
  340      345      350
Asp Glu Gln Asp Arg Val Pro Pro Val Asp Asp Lys His Leu Leu Lys
  355      360      365
Lys Asp Tyr Arg Lys Glu Thr Lys Ser Asn Ser Phe Ile Ser Ile Pro
  370      375      380
Lys Met Glu Val Lys Ser Tyr Thr Lys Asn Asn Thr Ile Ala Pro Lys
  385      390      395      400
Lys Ala Ser His Arg Ile Leu Ser Asp Thr Ser Asp Glu Glu Asp Ala
      405      410      415
Ser Val Thr Val Gly Thr Gly Glu Lys Leu Arg Leu Ser Ala His Thr
  420      425      430
Ile Leu Pro Gly Ser Lys Thr Arg Glu Pro Ser Asn Ala Lys Gln Gln
  435      440      445
Lys Glu Lys Asn Lys Val Lys Lys Lys Arg Lys Lys Glu Thr Lys Gly
  450      455      460
Arg Glu Val Arg Phe Gly Lys Arg Ser Xaa Ser Ser Ala Pro Arg Ser
  465      470      475      480
Arg Arg Ala Ser Pro Gln Arg Val Gly Arg Met Thr Gly Thr Leu Trp
      485      490      495
Gly Ala Leu Ala Ala Ser Arg Gly Pro Arg Trp Cys
      500      505

```

<210> 6151  
 <211> 648  
 <212> DNA  
 <213> Homo sapiens

<400> 6151  
 tttttttttt ttttttttga aggggtgagaa atttattcag atttcttcat aattcccccc  
 60  
 aaaagctcca accacgttgc cagtccttgg gtgctgcagt tggctcgggga gaggggctgt  
 120  
 gtggagggtca ccttctggta gacggagacc cgcttttcag actctgtggc gcagcaggcg  
 180  
 ggccagggaac atttgggcca ctattgctct tagccctgcc gcgcctgact ttctctcctc  
 240

tacttttcctt ccgaccgtag ggacaagtgt ggggatccgc ttggggctcc aaggccctgc  
 300  
 ccgcactggc agcaccaagc ggggtgtagaa tgactggaag gagcaggga ggaagatggg  
 360  
 tgtcaactgt cccggccagt ggctgcgtgc atgtgtgtgt gaacaggga aaggccaccc  
 420  
 tctcccatgt ttctcccgtc tcctcggttc tcctcgaga cccgcagggc tgcccagggt  
 480  
 agctccgagt tgccctgggt cgctggggct tggtcgcat cctcctccgc tagtccgctc  
 540  
 ccgcggtcca cagcgccccc cgctcggtg tgcacgcact gcggttaac ccagccgaca  
 600  
 aggcacgctt gccaaagg cgcggtgtg tgtgtgctgg gtccgcgg  
 648

<210> 6152  
 <211> 130  
 <212> PRT  
 <213> Homo sapiens

<400> 6152  
 Met Arg Thr Lys Pro Gln Arg Pro Arg Ala Thr Arg Ser Tyr Leu Gly  
 1 5 10 15  
 Gln Pro Cys Gly Ser Pro Arg Arg Thr Glu Glu Thr Gly Glu Thr Trp  
 20 25 30  
 Glu Arg Val Ala Phe Ser Leu Phe Thr His Thr Cys Thr Gln Pro Leu  
 35 40 45  
 Ala Gly Thr Val Asp Thr His Leu Pro Ser Leu Leu Pro Val Ile  
 50 55 60  
 Leu His Pro Leu Gly Ala Ala Ser Ala Gly Arg Ala Leu Glu Pro Lys  
 65 70 75 80  
 Ala Asp Pro His Thr Cys Pro Tyr Gly Arg Lys Glu Ser Arg Gly Glu  
 85 90 95  
 Lys Val Arg Arg Gly Arg Ala Lys Ser Asn Ser Gly Pro Asn Val Pro  
 100 105 110  
 Gly Pro Pro Ala Ala Pro Gln Ser Leu Lys Ser Gly Ser Pro Ser Thr  
 115 120 125  
 Arg Arg  
 130

<210> 6153  
 <211> 1810  
 <212> DNA  
 <213> Homo sapiens

<400> 6153  
 gatgcagtta cctgtgtgga cttcagatc aacacaaagc agctggccag tggtnccatg  
 60  
 gactcatgcc tcatggtctg gcacatgaag ctgcagtcac gcgcctaccg cttcactggc  
 120  
 cacaaggatg ccgtcacctg tgtgaacttc tctccttcgg gacacctgct tgcttcgggc  
 180  
 tcccagaca agactgtccg catctgggta cccaatgtca aaggtagatc cactgtgttt  
 240

cgtagcacaca cagccacagt gaggagtgtc cacttctgca gtgatggcca gtccttcgtg  
300  
acagcctctg acgacaagac agtcaaagtg tgggcaactc atcgccagaa attcctgttc  
360  
tccctgagcc agcatatcaa ctgggtccgc tgtgccaagt tctccccga cgggcggctc  
420  
atcgtgtctg ccagtgtga caagactgtt aagctgtggg acaagagcag ccgggaatgt  
480  
gtccactcgt attgtgagca tggcggtttt gtcacctatg tggacttcca cccagtgagg  
540  
acgtgcattg ccgctgccgg catggacaac acagtgaagg tgtgggacgt gcggactcac  
600  
cggctgtgc agcattatca gttgcacagt gcagcagtga acgggctctc ttccaccgc  
660  
tcgggaaact acctgatcac agcctccagt gactcaacct tgaagatcct ggacctgatg  
720  
gaggggccggc tgctctacac actccacggg catcaggagc cagccaccac tgttgccttt  
780  
tcaagaacgg gggagtattt tgcttctgga ggctctgatg aacaagtgat ggtttggaag  
840  
agtaactttg atattgttga tcatggagaa gtcacgaaag tgccgaggcc cccagccaca  
900  
ctggccagct ccatgggaa tctgccagaa gtggacttcc ctgtccccc aggcagaggc  
960  
tgtagtgttg agtctgtgca gagccagccc caggagcccg tgagtgtgcc ccagacactg  
1020  
actagcacgc tggagcacat tggggccag ctggatgtcc tactcagac agtctccatt  
1080  
ctggagcagc ggttgacact gacagaagac aagctgaagc agtgtctgga gaaccagcag  
1140  
ctaatactgc agagagcaac accatgatca ggggagcagg aatcaggagc tcggtggatt  
1200  
tgcaggtggc aggcagggga ttgtaccat gggacttggg taaataaagg ggactgaact  
1260  
ctgtgggaat cacatccata ctggagccct ggatttttgc agttctgccc tccaccttgc  
1320  
tatctgcacc aggaggtctc ccacctggca gccagaggtc cccagtgggc cgggctcaca  
1380  
cacaaatgat gcttcagacc cgaatgagag gaccacattt tgcttaatgt aaaggagcca  
1440  
cttgaaaatg tctgtccctt cggggctctg agattgtggc tccccctctg gaggaggtgg  
1500  
ctccacgatg ccttgatttt cactcatcat ttggacatgt gactggcttt tcctacctct  
1560  
gccatggtgt agaaattgat tgcacattga ttggatgagc cgggggtttt ctctaaatct  
1620  
gactaaaggc ccaaagtggg cccatctgag tcaggtttgt tgagaacaag ccctctcaag  
1680  
tgggtggtgg cttttcagtg gccctgattt ctgttccaca cgtgttctact ggagccaggt  
1740  
gacttctctc ttgcgtgagt gagggcacag gaatctcaaa attaaacctg acttcattgc  
1800  
aaaaaaaaa  
1810

<210> 6154  
 <211> 388  
 <212> PRT  
 <213> Homo sapiens

<400> 6154  
 Asp Ala Val Thr Cys Val Asp Phe Ser Ile Asn Thr Lys Gln Leu Ala  
 1 5 10 15  
 Ser Gly Xaa Met Asp Ser Cys Leu Met Val Trp His Met Lys Leu Gln  
 20 25 30  
 Ser Arg Ala Tyr Arg Phe Thr Gly His Lys Asp Ala Val Thr Cys Val  
 35 40 45  
 Asn Phe Ser Pro Ser Gly His Leu Leu Ala Ser Gly Ser Arg Asp Lys  
 50 55 60  
 Thr Val Arg Ile Trp Val Pro Asn Val Lys Gly Glu Ser Thr Val Phe  
 65 70 75 80  
 Arg Ala His Thr Ala Thr Val Arg Ser Val His Phe Cys Ser Asp Gly  
 85 90 95  
 Gln Ser Phe Val Thr Ala Ser Asp Asp Lys Thr Val Lys Val Trp Ala  
 100 105 110  
 Thr His Arg Gln Lys Phe Leu Phe Ser Leu Ser Gln His Ile Asn Trp  
 115 120 125  
 Val Arg Cys Ala Lys Phe Ser Pro Asp Gly Arg Leu Ile Val Ser Ala  
 130 135 140  
 Ser Asp Asp Lys Thr Val Lys Leu Trp Asp Lys Ser Ser Arg Glu Cys  
 145 150 155 160  
 Val His Ser Tyr Cys Glu His Gly Gly Phe Val Thr Tyr Val Asp Phe  
 165 170 175  
 His Pro Ser Gly Thr Cys Ile Ala Ala Ala Gly Met Asp Asn Thr Val  
 180 185 190  
 Lys Val Trp Asp Val Arg Thr His Arg Leu Leu Gln His Tyr Gln Leu  
 195 200 205  
 His Ser Ala Ala Val Asn Gly Leu Ser Phe His Pro Ser Gly Asn Tyr  
 210 215 220  
 Leu Ile Thr Ala Ser Ser Asp Ser Thr Leu Lys Ile Leu Asp Leu Met  
 225 230 235 240  
 Glu Gly Arg Leu Leu Tyr Thr Leu His Gly His Gln Gly Pro Ala Thr  
 245 250 255  
 Thr Val Ala Phe Ser Arg Thr Gly Glu Tyr Phe Ala Ser Gly Gly Ser  
 260 265 270  
 Asp Glu Gln Val Met Val Trp Lys Ser Asn Phe Asp Ile Val Asp His  
 275 280 285  
 Gly Glu Val Thr Lys Val Pro Arg Pro Pro Ala Thr Leu Ala Ser Ser  
 290 295 300  
 Met Gly Asn Leu Pro Glu Val Asp Phe Pro Val Pro Pro Gly Arg Gly  
 305 310 315 320  
 Trp Ser Val Glu Ser Val Gln Ser Gln Pro Gln Glu Pro Val Ser Val  
 325 330 335  
 Pro Gln Thr Leu Thr Ser Thr Leu Glu His Ile Val Gly Gln Leu Asp  
 340 345 350  
 Val Leu Thr Gln Thr Val Ser Ile Leu Glu Gln Arg Leu Thr Leu Thr  
 355 360 365  
 Glu Asp Lys Leu Lys Gln Cys Leu Glu Asn Gln Gln Leu Ile Met Gln

370 375 380  
 Arg Ala Thr Pro  
 385

<210> 6155  
 <211> 995  
 <212> DNA  
 <213> Homo sapiens

<400> 6155  
 aacagccaca gacgtatgtg taatatgatg ggcttttagaa tgtacctgca aagcagtttt  
 60  
 tttttttttt ccatttggag gaaaaaagat gaacacaaaa agactgaatt gggatgctaa  
 120  
 aataacagcg atttattatt aaggaaatga tacgcttttg tccattcaa ataagtgttt  
 180  
 tattcccttt ttctttattc ttgggagggt cctattgttg tgccaggctg ttttactga  
 240  
 acgattttta aaggatttca ccagtcaccac gtgtgaccgg ttgcattttt actgtgcagg  
 300  
 accatcgtga agcctgtggc caaagagttt gatccagaca tggctcttagt atctgctgga  
 360  
 ttgatgcat tggaaggcca caccctcct ctaggagggt acaaagtgaac ggcaaatgt  
 420  
 ttgtgtcatt tgacgaagca attgatgaca ttggctgatg gacgtgtggt gttggctcta  
 480  
 gaaggaggac atgatctcac agccatctgt gatgcatcag aagcctgtgt aaatgccctt  
 540  
 ctaggaaatg agctggagcc acttgcagaa gatattctcc accaaagccc gaatatgaat  
 600  
 gctgtttattt ctttacagaa gatcattgaa attcaaaaac tgctggtgag cctatggaag  
 660  
 aggagccagc cttgtgaagt gccaaagtcct cctctgatat ttctgtgtg tgacatcatt  
 720  
 gtgtatcccc ccacccagc accctcagac atgtcttgtc tgctgcctgg gtggcacaga  
 780  
 ttcaatggaa cataaacact gggcacaaaa ttctgaacag cagcttcact tgttctttgg  
 840  
 atggacttga aagggcatta aagattcctt aaacgtaacc gctgtgattc tagagttaca  
 900  
 gtaaacaccg attggaagaa actgcttcca gcatgctttt aatatgctgg gtgaccact  
 960  
 cctagacacc aagtttgaac tagaaacatt cagta  
 995

<210> 6156  
 <211> 164  
 <212> PRT  
 <213> Homo sapiens

<400> 6156  
 Thr Ile Val Lys Pro Val Ala Lys Glu Phe Asp Pro Asp Met Val Leu  
 1 5 10 15  
 Val Ser Ala Gly Phe Asp Ala Leu Glu Gly His Thr Pro Pro Leu Gly

[illegible]

```
<210> 6157
<211> 2135
<212> DNA
<213> Homo sapiens
```

```

<400> 6157
natttcattt tatcccaact accttttgagg taggtattat cctgttttac aaacgaagaa
60
actaaggctc agtgagatta atgatccaag gtcatataat ctaagtggta gagctgggat
120
ttgaacctca gtttgactaa ctatgaaact tttaactgct attctttctc aactttctct
180
ttttctgcag gatctggcga catggccaga aaggctctca agcttgcttc gtggaccagc
240
atggctcttg ctgcctctgg catctacttc tacagtaaca agtacttgga ccctaattgac
300
tttggcgctg tcagggtgagg cagagcagtt gctacgacgg ctgtcatcag ttacgactac
360
ctcacttccc tgaagagtgt ccccttatggc tcagaggagt acttgacagt gagatctaag
420
atccatgatt tgttccagag cttcgatgac acccctctgg ggacggcctc cctggcccag
480
gtccacaagg cagtgtctga tgatgggcgg acggtggccg tgaaggtcca gcacccaaag
540
gtgcgggctc agagctcgaa ggacattctc ctgatggagg tgctctgtct ggctgtgaag
600
cagctgttcc cagagtttga gtttatgtgg cttgtggatg aagccaagaa gaacctgcct
660
ttggagctgg atttccctcaa tgaaggaggg aatgctgaga aggtgtccca gatgtcagg
720
cattttgact tcttgaaggt cccccgaatc cactggggacc tgtccacgga gcgggtcttc
780
ctgaggaggt ttgtggatgg cgggcaggtc aatgacagag actacatgga gaggaacaag
840

```



atcgacgtca atgagatctc acgccacctg ggcaagatgt atagtgagat gatcttcgtc  
 900  
 aatggcttcg tgcactgcga tccccacccc ggcaacgtac tggcgcgaa gaccccggc  
 960  
 acgggaaagg cggagattgt cctgttgac catgggcttt accagatgct cacggaagaa  
 1020  
 ttccgcctga attactgcc cctctggcag tctctgatct ggactgacat gaagagagt  
 1080  
 aaggagtaca gccagcgact gggagccggg gatctctacc ccttgtttgc ctgcatgctg  
 1140  
 acggcgcgat cgtgggactc ggtcaacaga ggcacagcc aagctcccgt cactgccact  
 1200  
 gaggacttag agattcgcaa caacgcggcc aactacctcc cccagatcag ccattctctc  
 1260  
 aaccacgtgc cgcgccagat gctgctcctc ttgaagacca acgacctgct gcgtggcatt  
 1320  
 gaggccgccc tgggcacccc cgcacggccc agctccttcc tcaacatgct acgttgcctg  
 1380  
 atcagagcgc tagctgagca caagaagaag aatacctgtt cattcttcag aaggaccag  
 1440  
 atctctttca gcgaggcctt caacttatgg cagatcaacc tccatgagct catctgcgt  
 1500  
 gtgaaggggt tgaagctggc tgaccgggtc ttggccctaa tatgctggct gttccctgct  
 1560  
 ccaactctgag tgggaattgct ctccctgccc cattctgggtg tctttccact cctcagcccc  
 1620  
 tcatcttgcc tccaccagc tgctccattt ttgccacatc gtggcccgca gcccagagt  
 1680  
 cactgtccat gtcaccatcc ttctctctct ttggaatcct ctccgcacac tgtggccctt  
 1740  
 gtctcagggc ccacaagctg aactgtggca tagctctctc ttcttctcca agaagactca  
 1800  
 gcagcctaca ttcccatcc tggatatgct cattgggttg gatgtcccca ctacttcgt  
 1860  
 taacccttcc cattgtcaag atgtgccacg ggtgccactg ggggcacact gaactttag  
 1920  
 ggagtgtgat ttgttgagg gtgcacatgg tctctgaatt tgacagagaa caccttccct  
 1980  
 ttcttgcca tgtcacctc cagaggaagt cacacctcag cgagggtggt tggcatctgg  
 2040  
 ggccaactcc attacagcta tgagctcact gctgtcagtg acgtttgggtg tttctgtac  
 2100  
 tgtgtttcaa taaaaactcc ttcaagggtg aaaaa  
 2135

&lt;210&gt; 6158

&lt;211&gt; 455

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6158

Met Ala Arg Lys Ala Leu Lys Leu Ala Ser Trp Thr Ser Met Ala Leu

1 5 10 15

Ala Ala Ser Gly Ile Tyr Phe Tyr Ser Asn Lys Tyr Leu Asp Pro Asn

```

      20      25      30
Asp Phe Gly Ala Val Arg Val Gly Arg Ala Val Ala Thr Thr Ala Val
  35      40      45
Ile Ser Tyr Asp Tyr Leu Thr Ser Leu Lys Ser Val Pro Tyr Gly Ser
  50      55      60
Glu Glu Tyr Leu Gln Leu Arg Ser Lys Ile His Asp Leu Phe Gln Ser
  65      70      75      80
Phe Asp Asp Thr Pro Leu Gly Thr Ala Ser Leu Ala Gln Val His Lys
      85      90      95
Ala Val Leu His Asp Gly Arg Thr Val Ala Val Lys Val Gln His Pro
      100      105      110
Lys Val Arg Ala Gln Ser Ser Lys Asp Ile Leu Leu Met Glu Val Leu
      115      120      125
Val Leu Ala Val Lys Gln Leu Phe Pro Glu Phe Glu Phe Met Trp Leu
      130      135      140
Val Asp Glu Ala Lys Lys Asn Leu Pro Leu Glu Leu Asp Phe Leu Asn
      145      150      155      160
Glu Gly Arg Asn Ala Glu Lys Val Ser Gln Met Leu Arg His Phe Asp
      165      170      175
Phe Leu Lys Val Pro Arg Ile His Trp Asp Leu Ser Thr Glu Arg Val
      180      185      190
Leu Leu Met Glu Phe Val Asp Gly Gly Gln Val Asn Asp Arg Asp Tyr
      195      200      205
Met Glu Arg Asn Lys Ile Asp Val Asn Glu Ile Ser Arg His Leu Gly
      210      215      220
Lys Met Tyr Ser Glu Met Ile Phe Val Asn Gly Phe Val His Cys Asp
      225      230      235      240
Pro His Pro Gly Asn Val Leu Val Arg Lys His Pro Gly Thr Gly Lys
      245      250      255
Ala Glu Ile Val Leu Leu Asp His Gly Leu Tyr Gln Met Leu Thr Glu
      260      265      270
Glu Phe Arg Leu Asn Tyr Cys His Leu Trp Gln Ser Leu Ile Trp Thr
      275      280      285
Asp Met Lys Arg Val Lys Glu Tyr Ser Gln Arg Leu Gly Ala Gly Asp
      290      295      300
Leu Tyr Pro Leu Phe Ala Cys Met Leu Thr Ala Arg Ser Trp Asp Ser
      305      310      315      320
Val Asn Arg Gly Ile Ser Gln Ala Pro Val Thr Ala Thr Glu Asp Leu
      325      330      335
Glu Ile Arg Asn Asn Ala Ala Asn Tyr Leu Pro Gln Ile Ser His Leu
      340      345      350
Leu Asn His Val Pro Arg Gln Met Leu Leu Ile Leu Lys Thr Asn Asp
      355      360      365
Leu Leu Arg Gly Ile Glu Ala Ala Leu Gly Thr Arg Ala Ser Ala Ser
      370      375      380
Ser Phe Leu Asn Met Ser Arg Cys Cys Ile Arg Ala Leu Ala Glu His
      385      390      395      400
Lys Lys Lys Asn Thr Cys Ser Phe Phe Arg Arg Thr Gln Ile Ser Phe
      405      410      415
Ser Glu Ala Phe Asn Leu Trp Gln Ile Asn Leu His Glu Leu Ile Leu
      420      425      430
Arg Val Lys Gly Leu Lys Leu Ala Asp Arg Val Leu Ala Leu Ile Cys
      435      440      445
Trp Leu Phe Pro Ala Pro Leu

```

450

455

<210> 6159  
<211> 4310  
<212> DNA  
<213> Homo sapiens

<400> 6159  
ctcagagggtgc gcgccggccc ggactcggcg ggcacgccc tctacagcca tgaagatgtg  
60  
tgtgtcttta agtgctcagt gtcccggagag acagagtgca gccgtgtggg caagcagtcc  
120  
ttcatcatca ccctgggctg caacagcgtc ctcattcagt tcgccacacc caacgatttc  
180  
tgttccttct acaacatcct gaaaacctgc cggggccaca ccctggagcg gtctgtgttc  
240  
agcgagcgga cggaggagtc ttctgccgtg cagtacttcc agttttatgg ctacctgtcc  
300  
cagcagcaga acatgatgca ggactacgtg cggacaggca cctaccagcg cgccatcctg  
360  
caaaaccaca ccgacttcaa ggacaagatc gttcttgatg ttggctgtgg ctctgggac  
420  
ctgtcgtttt ttgccgccca agctggagca cggaaaatct acgcggtgga ggccagcacc  
480  
atggcccagc acgctgaggt cttggtgaag agtaacaacc tgacggaccg catcgtggtc  
540  
atcccgggca aggtggagga ggtgtcactc cccgagcagg tggacatcat catctcggag  
600  
cccattgggt acatgctctt caacgagcgc atgctggaga gctacctcca cgccaagaag  
660  
tacctgaagc ccagcggaaa catgtttcct accattgggt acgtccacct tgcacccttc  
720  
acggatgaac agctctacat ggagcagttc accaaggcca acttctggta ccagccatct  
780  
ttccatggag tggacctgtc ggccctccga ggtgccgcgg tggatgagta ttccggcag  
840  
cctgtggttg acacatttga catccggatc ctgatggcca agtctgtcaa gtacacgggtg  
900  
aacttcttag aagccaaaga aggagatttg cacaggatag aaatccatt caaattccac  
960  
atgctgcatt cagggctggt ccacggcctg gctttctggt ttgacgttgc ttcatcggc  
1020  
tcataatga ccgtgtggct gtccacagcc ccgacagagc ccctgaccca ctggtaccag  
1080  
gtgcggtgcc tgttccagtc accactgttc gccaaaggcag gggacacgct ctcagggaca  
1140  
tgtctgctta ttgccaacaa aagacagagc tacgacatca gtattgtggc ccaggtggac  
1200  
cagacggct ccaagtccag taacctcctg gatctgaaaa accccttctt tagatacacg  
1260  
ggcacaacgc cctcaccccc acccggtccc cactacacat ctccctcgga aaacatgtgg  
1320  
aacacgggca gcacctacaa cctcagcagc gggatggccg tggcagggat gccgaccgcc  
1380

5342

tatgacttga gcagtgttat tgccagtggc tccagcgtgg gccacaacaa cctgattcct  
1440  
ttagccaaca cggggattgt caatcacacc cactcccgga tgggctccat aatgagcacg  
1500  
gggattgtcc aagggtccctc cggcgcccag ggcagtgggtg gtggcagcac gagtgtccac  
1560  
tatgcagtca acagccagtt caccatgggc ggcccccgcca tctccatggc gtcgcccattg  
1620  
tccatcccga ccaacaccat gcactacggg agctaggggc cggccccgcg gactgacagc  
1680  
accaggaaac caaatgatgt ccctgcccgc cgcccccgcc gggcggcctt ccccttgta  
1740  
ctggagaagc tcgaacaccc ggtcacagct ctctttgcta tgggaactgg gacacttttt  
1800  
tacacgatgt tgccgcgctc cccaccctaa ccccccacctc ccggccctga gcgtgtgtcg  
1860  
ctgccatatt ttacacaaaa tcatgtttgt ggagccctcg tccccctcc tggcgctct  
1920  
accctgacct gggcttgtca tctgttgaa caggcgccat ggggcctgcc agccctgcct  
1980  
gccagggtccc ttagcacctg tccccctgcc tgtctccagt gggaaggtag cctggccagg  
2040  
cggggcctcc ccttcgacga ccaggcctcg gtcacaacgg acgtgacatg ctgctttttt  
2100  
taattttatt tttttatgaa aagaaccagt gtcaatccgc agaccctctg tgaagccagg  
2160  
ccgggccggg cgagccagca gcccctctcc ctgactcag aggcgcgcg gggagggggtg  
2220  
gccccgcga ggcttcaggg gccccctccc caccaaaggg ttcacctcac acttgaatgt  
2280  
acaaccaccc cactgtcggg gaaggcctcc gtcctcgcc cctgctctt gctgctgtcc  
2340  
tgtccccgag cccctgcagg tcccccccg cccccccact caagagttag agcagggtggc  
2400  
tgcaggcctt gggcccgag ggaaggccac tgccggccac ttggggcaga cacagacacc  
2460  
tcaaggatct gtcacggaag gcgtcctttt tcctttagc taacgttagg cctgagtagc  
2520  
tccccctcat cctttagtac gctccagtc ctactactgt gacggcattt ccatccctcc  
2580  
cctgcccggg aagggaacct gcagggacct ctccctccaa aaaaagaaaa aaagaaaaag  
2640  
aaagaaaaaa taaatgagga aacgtgttgc agcacaggca gttttcttct ccttctgtc  
2700  
ccctgtttct cataccccca aactcagatg ctggagctca gggccgccgt gtgtgcaccc  
2760  
aggcaggagc gggcgctgtc caggctgggc cgcccccttg gctctccctc ctgttccagg  
2820  
ggagccatag gagggaagc aggtggcccg ggggggatat gggggcccca gccctgtccc  
2880  
aaagctccct gctcggtgc ccctcgcccg cctttatata aattctctga atcaccttg  
2940  
catagaaaat aaaagtgttt gctttgtaag aaaagtctgg aaagtagcag aatcatctca  
3000

aggtgtcaaa ggagccttca gtcacgtctt ggggggcagg acaggcagag gggttgttcc  
 3060  
 acttaggtgt tgcctgaaag aaagaattgt ctgtgggacc cgggccttcc taggaggggg  
 3120  
 ccagggactg cggcaaggta ggggacagcg cgatgtttga gggcagagat gtgatttggg  
 3180  
 gtggaggagc cacgttctcc ggaggcagcg actggaagaa gtacaactta cagcccatgg  
 3240  
 ccaggaggcg gtggagcagc acgaccacgg acagcagcac tgtggccacc agcctgggtg  
 3300  
 cctcacggac caggggacag aggggtgaata ccagcccgcc ggctgacagg cccaggggcca  
 3360  
 gcgccccaaa gagccactgc agccaaggca cagggatgag ccacaggacc accatggggg  
 3420  
 tgaagacaaa gagggagtag ccgtagatgc acacagtctc caggaagggtg tagggcccca  
 3480  
 tgcgtctctg gacacccttg cgccaccgca ggaagcccca caggggccagg ggcaccagcc  
 3540  
 acgcatagca gtagatgctg atgcctgcca cggtcacctt gtggaactgg gggctgtagt  
 3600  
 ggatggaggg gtccctctct tgggcccagc ccagcgtcag gttgccagtg acggcccagg  
 3660  
 caaaggccaa cgtggcacag atccagaagg ggccatacag atccggccga tccgcagat  
 3720  
 ggtgccgac aaagtgttgg ccaggccggg gcagcagtga gcctttgatc cgtgccagga  
 3780  
 cctgtgaggt gtccacgtca aagaagctct gatagtagct gaaggtccag aatcccggt  
 3840  
 gctgctgctg ctgctgctcc tgcaggagcg cggccttgtc actctctcc tccacctcat  
 3900  
 cctcggctcc atagctgcca cctgagccca cggccacagc cacgtgccct tgtggggcca  
 3960  
 gctgatcgct tctgctggtg gtggctgcat ctggggtgtc agccagaaga ttagtgccct  
 4020  
 cctcgaattc atggaaggtc agctcgtcgg ccgatgccat ggtcgttcag gggcgtctcc  
 4080  
 gcatccctcg ctggcgacca actgcaccca cggaggcttg aactcgtcgt cccgtcccca  
 4140  
 caggtgcgct ccgccccccc tcacctgagg ccacctgggc cggcgtggct ggggctcatc  
 4200  
 cctgtgcctt ggctgcagtg gctctttggg gcgctggccc tgggcctgtc agccgcccgg  
 4260  
 ctggtattca ccctctggcc cgtgggtccg gaggaacca ggctgggtggc  
 4310

<210> 6160

<211> 551

<212> PRT

<213> Homo sapiens

<400> 6160

Leu Glu Val Arg Ala Gly Pro Asp Ser Ala Gly Ile Ala Leu Tyr Ser  
 1 5 10 15  
 His Glu Asp Val Cys Val Phe Lys Cys Ser Val Ser Arg Glu Thr Glu

```

      20      25      30
Cys Ser Arg Val Gly Lys Gln Ser Phe Ile Ile Thr Leu Gly Cys Asn
  35      40      45
Ser Val Leu Ile Gln Phe Ala Thr Pro Asn Asp Phe Cys Ser Phe Tyr
  50      55      60
Asn Ile Leu Lys Thr Cys Arg Gly His Thr Leu Glu Arg Ser Val Phe
  65      70      75      80
Ser Glu Arg Thr Glu Glu Ser Ser Ala Val Gln Tyr Phe Gln Phe Tyr
  85      90      95
Gly Tyr Leu Ser Gln Gln Gln Asn Met Met Gln Asp Tyr Val Arg Thr
  100      105      110
Gly Thr Tyr Gln Arg Ala Ile Leu Gln Asn His Thr Asp Phe Lys Asp
  115      120      125
Lys Ile Val Leu Asp Val Gly Cys Gly Ser Gly Ile Leu Ser Phe Phe
  130      135      140
Ala Ala Gln Ala Gly Ala Arg Lys Ile Tyr Ala Val Glu Ala Ser Thr
  145      150      155      160
Met Ala Gln His Ala Glu Val Leu Val Lys Ser Asn Asn Leu Thr Asp
  165      170      175
Arg Ile Val Val Ile Pro Gly Lys Val Glu Glu Val Ser Leu Pro Glu
  180      185      190
Gln Val Asp Ile Ile Ile Ser Glu Pro Met Gly Tyr Met Leu Phe Asn
  195      200      205
Glu Arg Met Leu Glu Ser Tyr Leu His Ala Lys Lys Tyr Leu Lys Pro
  210      215      220
Ser Gly Asn Met Phe Pro Thr Ile Gly Asp Val His Leu Ala Pro Phe
  225      230      235      240
Thr Asp Glu Gln Leu Tyr Met Glu Gln Phe Thr Lys Ala Asn Phe Trp
  245      250      255
Tyr Gln Pro Ser Phe His Gly Val Asp Leu Ser Ala Leu Arg Gly Ala
  260      265      270
Ala Val Asp Glu Tyr Phe Arg Gln Pro Val Val Asp Thr Phe Asp Ile
  275      280      285
Arg Ile Leu Met Ala Lys Ser Val Lys Tyr Thr Val Asn Phe Leu Glu
  290      295      300
Ala Lys Glu Gly Asp Leu His Arg Ile Glu Ile Pro Phe Lys Phe His
  305      310      315      320
Met Leu His Ser Gly Leu Val His Gly Leu Ala Phe Trp Phe Asp Val
  325      330      335
Ala Phe Ile Gly Ser Ile Met Thr Val Trp Leu Ser Thr Ala Pro Thr
  340      345      350
Glu Pro Leu Thr His Trp Tyr Gln Val Arg Cys Leu Phe Gln Ser Pro
  355      360      365
Leu Phe Ala Lys Ala Gly Asp Thr Leu Ser Gly Thr Cys Leu Leu Ile
  370      375      380
Ala Asn Lys Arg Gln Ser Tyr Asp Ile Ser Ile Val Ala Gln Val Asp
  385      390      395      400
Gln Thr Gly Ser Lys Ser Ser Asn Leu Leu Asp Leu Lys Asn Pro Phe
  405      410      415
Phe Arg Tyr Thr Gly Thr Thr Pro Ser Pro Pro Gly Ser His Tyr
  420      425      430
Thr Ser Pro Ser Glu Asn Met Trp Asn Thr Gly Ser Thr Tyr Asn Leu
  435      440      445
Ser Ser Gly Met Ala Val Ala Gly Met Pro Thr Ala Tyr Asp Leu Ser

```

450                      455                      460  
 Ser Val Ile Ala Ser Gly Ser Ser Val Gly His Asn Asn Leu Ile Pro  
 465                      470                      475                      480  
 Leu Ala Asn Thr Gly Ile Val Asn His Thr His Ser Arg Met Gly Ser  
                     485                      490                      495  
 Ile Met Ser Thr Gly Ile Val Gln Gly Ser Ser Gly Ala Gln Gly Ser  
                     500                      505                      510  
 Gly Gly Gly Ser Thr Ser Ala His Tyr Ala Val Asn Ser Gln Phe Thr  
                     515                      520                      525  
 Met Gly Gly Pro Ala Ile Ser Met Ala Ser Pro Met Ser Ile Pro Thr  
                     530                      535                      540  
 Asn Thr Met His Tyr Gly Ser  
 545                      550

<210> 6161  
 <211> 1489  
 <212> DNA  
 <213> Homo sapiens

<400> 6161  
 ggctgcatga tcttcagcag attcagtaca gagggaagtg agctgtggga gaggaaggag  
 60  
 gatgggggaa atgggaagaa aaggagcacc ctgcttagaa agggaacgga gccgggtgtg  
 120  
 gtggctcacg cctgcaatcc anacaccttg ggaggccgaa gcaaggagat cacctgagcc  
 180  
 caagagtttg agaccaccca catagcaaga ccccatctct attttttggg aaaaaaaaaa  
 240  
 aaaagcagca accagcagga tgggtggaaa aaagttgctg aaggctcttc aagatcctct  
 300  
 ctgctgctc cttctctcac agagggacag gggaggggtg tagtcagtgt gactgaatgt  
 360  
 ccccatgggg atgaaggatg gttgggggtc gggtcctaga gggagggctg gaaggaggga  
 420  
 aggagatggc cagagaagga tgtaggacac agaggtgccg ccgtggatca ccaagagggt  
 480  
 caggactggc cagaggaagg agaggagatc aaggcaagca tgaggcactt gggagatgca  
 540  
 tctgtgcctg cacacagctg aaatccccag gaaataagac gggagcaggg tgggtttctg  
 600  
 cagccgaggt gagaccaaag tgccagctca ctgccaccct cagtaaagac taacttgccc  
 660  
 ttccccacaa ctccccctcc agaagtagct tgctctctc tgcttgccac acatcggggg  
 720  
 gctcagggaa agctccccct ccctggacag ctagtgttcc ctaggccaag gccagtcctt  
 780  
 gcagagatga ggagctggga aatccccctc tcccatcccg cacgtccacg cgtgccagat  
 840  
 cctgtgctgc gggcttttca cacacagcct cttagacgct tagcctgtga ggcgggtgct  
 900  
 gttgtccttc cttcccatth tgcaactgag caaacagcct gaaagagaca aaaaccaggt  
 960  
 agtttagcatg accccaaagc cactccctgg tctacgctgt tctgcagcct gagcctgggg  
 1020

tggccaggtg gggttgtgca gtgagggggg gaaggagaat agccccaaa aatgctgccg  
 1080  
 gaatggtaaa gggcctggac tgcaaaagcta gtgacttgag ctttatatttg tggcactgga  
 1140  
 ggttttccca gtcattgtaa tgatacaatc agatttgcgt tgtcttcaag ttaccatggt  
 1200  
 aaccgtactt ccaccacca agagtggatt ggagaaggca aaactagggc agagaagcca  
 1260  
 gggagtgttg agaaggtctg aaccagaca gtgggcagct gggccccaag acggatgggg  
 1320  
 gactccagaa gcgtggagct ggcagagaga aacctgcccg gggcatcaga gaaaagggcg  
 1380  
 actgtgcagg aacagagtag atgaggtggg gaacctttgg gtaagaagag ctgaatcagg  
 1440  
 agcattgagg cagcggtttt caaacctcag aagcaacagc agggccggc  
 1489

<210> 6162  
 <211> 58  
 <212> PRT  
 <213> Homo sapiens

<400> 6162  
 Gly Cys Met Ile Phe Ser Arg Phe Ser Thr Glu Gly Ser Glu Leu Trp  
 1 5 10 15  
 Glu Arg Lys Glu Asp Gly Gly Asn Gly Lys Lys Arg Ser Thr Leu Leu  
 20 25 30  
 Arg Lys Gly Thr Glu Pro Gly Val Val Ala His Ala Cys Asn Pro Xaa  
 35 40 45  
 Thr Leu Gly Gly Arg Ser Lys Glu Ile Thr  
 50 55

<210> 6163  
 <211> 713  
 <212> DNA  
 <213> Homo sapiens

<400> 6163  
 gtggaaatga gcctctcatt aaaacacgtg ctttctggga gccgtgatga acgtgagtgt  
 60  
 gagatgagtc cagctgcggt cagagccatg ggatgtgggt cactgtgacc cagtgggtca  
 120  
 cagggtgctga gcaaggaagg gctgggaggc tcaagcaaaa tctacaagaa aaatctaaag  
 180  
 gggcccagcc tctgccagga aaagcaggcc tggctctgct gaaaccccaa tcacgctctg  
 240  
 atggataccg gtacctgggc aaggataccg tggatggact tgattcttct ctctgaaat  
 300  
 gtacgagaag gtgcatgcgg ggatttcggc tgcctgaaaa gcaaccctct aaaacccgag  
 360  
 tgtcatTTTT agaatcaaaa aggaaggaag gcagtggctg gctgcactgg tcagtaacga  
 420  
 gatctggagc ttttcgcctt aaggtcactg tttaaaactc tgccctgggt cagttgtaac  
 480



agaaagtcac aactccctca caggcatcag ggtgcaactt tgaatgccaa gaggggctgt  
 540  
 gtctgttggt taccacgcgg cgagctcccg'ggacacctcc tgacacctcc tgacagtgtc  
 600  
 tctttctcta ggagtctcct ctcttccac ccaccatggc ggccctggcct ggaggggagg  
 660  
 cattggggac tgagtcttc cccgacaggg agtctctctc cccctggcg cgc  
 713

<210> 6164  
 <211> 120  
 <212> PRT  
 <213> Homo sapiens

<400> 6164  
 Met Trp Val Thr Val Thr Gln Trp Val Thr Gly Ala Glu Gln Gly Arg  
 1 5 10 15  
 Ala Gly Arg Leu Lys Gln Asn Leu Gln Lys Ser Lys Gly Ala Gln  
 20 25 30  
 Pro Leu Pro Gly Lys Ala Gly Leu Ala Leu Leu Lys Pro Gln Ser Arg  
 35 40 45  
 Ser Asp Gly Tyr Arg Tyr Leu Gly Lys Asp Thr Val Asp Gly Leu Asp  
 50 55 60  
 Ser Ser Leu Leu Lys Cys Thr Arg Arg Cys Met Arg Gly Phe Arg Leu  
 65 70 75 80  
 Pro Glu Lys Gln Pro Ser Lys Thr Arg Val Ser Phe Leu Glu Ser Lys  
 85 90 95  
 Arg Lys Glu Gly Ser Gly Trp Leu His Trp Ser Val Thr Arg Ser Gly  
 100 105 110  
 Ala Phe Arg Leu Lys Val Thr Val  
 115 120

<210> 6165  
 <211> 1004  
 <212> DNA  
 <213> Homo sapiens

<400> 6165  
 cccagccgga tcgggcggcg aagcccgcg cggcgagcag caaccatgtc ggtgttcggg  
 60  
 aagctgttcg gggctggagg gggtaaggcc ggcaaggcg gcccgacccc ccaggaggcc  
 120  
 atccagcggc tcggggacac ggaagagatg ttaagcaaga aacaggagtt cctggagaag  
 180  
 aaaatcgagc aggagctgac ggccgccaag aagcacggca ccaaaaacaa gcgcgcggcc  
 240  
 ctccaggcac tgaagcgtaa gaagaggtat gagaagcagc tggcgcagat cgacggcaca  
 300  
 ttatcaacca tcgagttcca gcgggaggcc ctggagaatg ccaacaccaa caccgaggtg  
 360  
 ctcaagaaca tgggctatgc cgccaaggcc atgaaggcgg cccatgacaa catggacatc  
 420  
 gataaagttg atgagttaat gcaggacatt gctgaccagc aagaacttgc agaggagatt  
 480

tcaacagcaa tttcgaaacc tgtaggggtt ggagaagagt ttgacgagga tgagctcatg  
 540  
 gcggaattag aagaactaga acaggaggaa ctagacaaga atttgctgga aatcagtgga  
 600  
 cccgaaacag tccctctacc aaatgttccc tctatagccc taccatcaaa acccgccaag  
 660  
 aagaaagaag aggaggacga cgacatgaag gaattggaga actgggctgg atccatgtaa  
 720  
 tgggggtccag cgctggctgg gcccgacag actgtggtgg cctgcgcagc gagcaggcgt  
 780  
 gtgcgtgtgt ggggcaggca ggatgtggtg caggcaggtt ccatcgcttt cgactctcac  
 840  
 tccaaagcag tagggccgcg ttgctgctca ctctctgcat agcatggtct gcacctggga  
 900  
 gttggccggg gggagggggg cgagcgggct ggcacgtgcc tgctgtttat aatgttgaat  
 960  
 ttctgtaaaa taaactgtat ttgcaaatcc aaaaaaaaaa aaaa  
 1004

<210> 6166

<211> 239

<212> PRT

<213> Homo sapiens

<400> 6166

Pro Ser Arg Ile Gly Arg Arg Arg Pro Ala Arg Arg Ala Ala Thr Met  
 1 5 10 15  
 Ser Val Phe Gly Lys Leu Phe Gly Ala Gly Gly Lys Ala Gly Lys  
 20 25 30  
 Gly Gly Pro Thr Pro Gln Glu Ala Ile Gln Arg Leu Arg Asp Thr Glu  
 35 40 45  
 Glu Met Leu Ser Lys Lys Gln Glu Phe Leu Glu Lys Lys Ile Glu Gln  
 50 55 60  
 Glu Leu Thr Ala Ala Lys Lys His Gly Thr Lys Asn Lys Arg Ala Ala  
 65 70 75 80  
 Leu Gln Ala Leu Lys Arg Lys Lys Arg Tyr Glu Lys Gln Leu Ala Gln  
 85 90 95  
 Ile Asp Gly Thr Leu Ser Thr Ile Glu Phe Gln Arg Glu Ala Leu Glu  
 100 105 110  
 Asn Ala Asn Thr Asn Thr Glu Val Leu Lys Asn Met Gly Tyr Ala Ala  
 115 120 125  
 Lys Ala Met Lys Ala Ala His Asp Asn Met Asp Ile Asp Lys Val Asp  
 130 135 140  
 Glu Leu Met Gln Asp Ile Ala Asp Gln Gln Glu Leu Ala Glu Glu Ile  
 145 150 155 160  
 Ser Thr Ala Ile Ser Lys Pro Val Gly Phe Gly Glu Glu Phe Asp Glu  
 165 170 175  
 Asp Glu Leu Met Ala Glu Leu Glu Glu Leu Glu Gln Glu Glu Leu Asp  
 180 185 190  
 Lys Asn Leu Leu Glu Ile Ser Gly Pro Glu Thr Val Pro Leu Pro Asn  
 195 200 205  
 Val Pro Ser Ile Ala Leu Pro Ser Lys Pro Ala Lys Lys Lys Glu Glu  
 210 215 220  
 Glu Asp Asp Asp Met Lys Glu Leu Glu Asn Trp Ala Gly Ser Met

225                      230                      235

<210> 6167  
<211> 1220  
<212> DNA  
<213> Homo sapiens

<400> 6167  
ngccatacag catttttagtt ttgttctttc cattaactga agtcacgagg tatgcctcct  
60  
tggaaactcc aacagttaag agattctcat gtattccatg aaataaaaag caaagaaaaa  
120  
tcaaacttgt cttaatgaga tggaaagtgt ggatcaaaca ctgattgagc tgttctatgt  
180  
cctccacttc cccagtgcct tctctctctc cggtctctgc cggaacgcgc ctccctaccc  
240  
catttgcctt cgtccctccc cgtccctcta cgcgttttgg tccctgtttg gtgctttctg  
300  
tttgagcta cggcagttag tatgtatgtg acggaccccg agtcacccgc ggcctgggac  
360  
ccctgcctac cctcgtctc gccagccgag ctgtggaact agcgcgtgcc ccctcgccga  
420  
cctcggcgct tccgtccgc ccctcacttg tgggggggcg cagctcctgg tccctcagct  
480  
gcgcgcgcgc ccaacgcgcg gggctgcggg tctagggggg cgcctctctc ctggctttcc  
540  
aagggtctag gtcgtgattc tagggcggtt gggcggtccg ggcctcgggt ggggtggcgt  
600  
gtctgccctt tttatctccc cgcaaggccc ccagtcttct agggaagcca gtcagtgaag  
660  
cgcgagggtc cgggcgcgcc gagagagagt ccagtctttg aggaccgagt agtcctgggc  
720  
cacctccgcg ctctgctgtc agaagcagca gctgccgcgc tggaaatcaa aatttcggga  
780  
gctgtgaccc tttcctcatg taaaacgagt agtcttggac gatctgggca taggaaccaa  
840  
tcagaaacaa tcgcttcagc aatcaagacc attgttcac atggagggaac ccatggatac  
900  
ctctgagcct ctatctgcat taccattcac tgggcagcag tcttttgagc caagtggcaa  
960  
atttggacag tatccatgca tgcagatgaa ccacatccag gcactgggga agtggaggac  
1020  
atagaacagc tcaatcagtg tttgatccaa cacttccatc tcattaagac aagtttgatt  
1080  
tttctttgct ttttatttca tgggaatacat gagaatctct taactgttgg agtttccaag  
1140  
gaggcatacc tcatgacttc agttaatgga aagaacaaaa ctaaaatgct gtatggccaa  
1200  
agccacaaaag ggaaggatcc  
1220

<210> 6168  
<211> 90  
<212> PRT

<213> Homo sapiens

<400> 6168

```

Ala Lys Trp Gln Ile Trp Thr Val Ser Ile Asp Ala Asp Glu Pro His
 1             5             10             15
Pro Gly Thr Gly Glu Val Glu Asp Ile Glu Gln Leu Asn Gln Cys Leu
      20             25             30
Ile Gln His Phe His Leu Ile Lys Thr Ser Leu Ile Phe Leu Cys Phe
 35             40             45
Leu Phe His Gly Ile His Glu Asn Leu Leu Thr Val Gly Val Ser Lys
 50             55             60
Glu Ala Tyr Leu Met Thr Ser Val Asn Gly Lys Asn Lys Thr Lys Met
 65             70             75             80
Leu Tyr Gly Gln Ser His Lys Gly Lys Asp
      85             90

```

<210> 6169

<211> 720

<212> DNA

<213> Homo sapiens

<400> 6169

```

tgagggcttc gatcccttct ctgatttgct gtcagccatg aacggatgga tgtgatgcct
 60
gctagccaaa aggcttcctt ctgtgtgttg cagtcctgtg gcattatgca tgccccctcc
 120
cagtgacccc aggcttttta tggctgtgaa acacgttaaa atttcagggt aagacgtgac
 180
cttttgaggt gactataact gaagattgct ttacagaagc caaaaaagg tttttgagtc
 240
atgatgcaag aatctgggac tgagacaaaa agtaacgggt cagccatcca gaatgggtcg
 300
ggcggcagca accacttact agagtgcggc ggtcttcggg aggggcggtc caacggagag
 360
acgccggcgg tggacatcgg ggcagctgac ctgcgccacg cccagcagca gcagcaacag
 420
tggcatctca taaaccatca gccctctagg agtcccagca gttggcttaa gagactaatt
 480
tcaagccctt gggagtggga agtcctgcag gtcccttggt gggagcagtt gctgagacga
 540
agatgagtgg acctgtgtgt cagcctaacc cttccccatt ttgaataaaa ttattctttg
 600
gagaaatggt tcccactgct ttcattgcaa aataaaaaatt aaacgaaaaa cagcttaagc
 660
ctgtgaagaa ggaaatactg agctagccag caaaagagag aaagaagagg aggggagagg
 720

```

<210> 6170

<211> 101

<212> PRT

<213> Homo sapiens

<400> 6170

```

Met Met Gln Glu Ser Gly Thr Glu Thr Lys Ser Asn Gly Ser Ala Ile

```

1	5	10	15
Gln Asn Gly Ser Gly Gly Ser Asn His Leu Leu Glu Cys Gly Gly Leu			
20	25	30	
Arg Glu Gly Arg Ser Asn Gly Glu Thr Pro Ala Val Asp Ile Gly Ala			
35	40	45	
Ala Asp Leu Ala His Ala Gln Gln Gln Gln Gln Trp His Leu Ile			
50	55	60	
Asn His Gln Pro Ser Arg Ser Pro Ser Ser Trp Leu Lys Arg Leu Ile			
65	70	75	80
Ser Ser Pro Trp Glu Leu Glu Val Leu Gln Val Pro Cys Gly Glu Gln			
85	90	95	
Leu Leu Arg Arg Arg			
100			

&lt;210&gt; 6171

&lt;211&gt; 1130

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6171

```

nncccgctag gagttcctag taaagtggcg ggagccgcag ctatggagcc gcaggaggag
60
agagaaacgc aggttgctgc gtggttaaaa aaaatatttg gagatcatcc tattccacag
120
tatgaggtga acccacggac cacagagatt ttacatcacc tttcagaacg caacagggtc
180
cgggacaggg atgtctacct ggtaatagag gacttgaagc agaaagcaag tgaatacgag
240
tcagaagcca agtatcttca agaccttctc atggagagtg tgaatttttc ccccgccaat
300
ctctctagca ctggttccag gtatctgaat gctttggttg acagtgcggt ggcccttgaa
360
acaaaggata cctcgctagc tagttttatc cctgcagtga atgatttgac ctctgatctc
420
tttcgtacca aatccaaaag tgaagaaatc aagattgaac tggaaaaact tgaaaaaat
480
ttaactgcaa ctttagtatt agaaaaatgt ctacaagagg atgtcaagaa agcagagttg
540
catctgtcta cagaaagggc caaagttgat aatcgtcgtc agaacatgga ctttctaaaa
600
gcaaagtcag aggaattcag atttggaatc aaggctgcag aggagcaact ttcagccaga
660
ggcatggatg cttctctgtc tcatcagtc ttagtagcac tatcagagaa actggcaaga
720
ttaagcaac agactatacc tttgaagaaa aaattggagt cctattttaga cttaatgccg
780
aatccgtctc ttgctcaagt gaaaattgaa gaagcaaagc gagaactaga tagcattgaa
840
gctgaactta caagaagagt agacatgatg gaactgtgac aaaagccaaa taaacatcct
900
tttccctaac aaagtaaatt gaataggact ttacagagtt ctttttcctc ttggcatttc
960
ctaataacaa aactttctgt gttcttagat tacagaatat cataattgat agaatatggt
1020

```

ttcttactgt gtgttgcat tttgtgccca aatacatagt tttcatatta aaaagccttt  
 1080  
 tctcttaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa  
 1130

<210> 6172  
 <211> 292  
 <212> PRT  
 <213> Homo sapiens

<400> 6172  
 Xaa Pro Leu Gly Val Pro Ser Lys Val Ala Gly Ala Ala Ala Met Glu  
 1 5 10 15  
 Pro Gln Glu Glu Arg Glu Thr Gln Val Ala Ala Trp Leu Lys Lys Ile  
 20 25 30  
 Phe Gly Asp His Pro Ile Pro Gln Tyr Glu Val Asn Pro Arg Thr Thr  
 35 40 45  
 Glu Ile Leu His His Leu Ser Glu Arg Asn Arg Val Arg Asp Arg Asp  
 50 55 60  
 Val Tyr Leu Val Ile Glu Asp Leu Lys Gln Lys Ala Ser Glu Tyr Glu  
 65 70 75 80  
 Ser Glu Ala Lys Tyr Leu Gln Asp Leu Leu Met Glu Ser Val Asn Phe  
 85 90 95  
 Ser Pro Ala Asn Leu Ser Ser Thr Gly Ser Arg Tyr Leu Asn Ala Leu  
 100 105 110  
 Val Asp Ser Ala Val Ala Leu Glu Thr Lys Asp Thr Ser Leu Ala Ser  
 115 120 125  
 Phe Ile Pro Ala Val Asn Asp Leu Thr Ser Asp Leu Phe Arg Thr Lys  
 130 135 140  
 Ser Lys Ser Glu Glu Ile Lys Ile Glu Leu Glu Lys Leu Glu Lys Asn  
 145 150 155 160  
 Leu Thr Ala Thr Leu Val Leu Glu Lys Cys Leu Gln Glu Asp Val Lys  
 165 170 175  
 Lys Ala Glu Leu His Leu Ser Thr Glu Arg Ala Lys Val Asp Asn Arg  
 180 185 190  
 Arg Gln Asn Met Asp Phe Leu Lys Ala Lys Ser Glu Glu Phe Arg Phe  
 195 200 205  
 Gly Ile Lys Ala Ala Glu Glu Gln Leu Ser Ala Arg Gly Met Asp Ala  
 210 215 220  
 Ser Leu Ser His Gln Ser Leu Val Ala Leu Ser Glu Lys Leu Ala Arg  
 225 230 235 240  
 Leu Lys Gln Gln Thr Ile Pro Leu Lys Lys Lys Leu Glu Ser Tyr Leu  
 245 250 255  
 Asp Leu Met Pro Asn Pro Ser Leu Ala Gln Val Lys Ile Glu Glu Ala  
 260 265 270  
 Lys Arg Glu Leu Asp Ser Ile Glu Ala Glu Leu Thr Arg Arg Val Asp  
 275 280 285  
 Met Met Glu Leu  
 290

<210> 6173  
 <211> 1483  
 <212> DNA  
 <213> Homo sapiens

<400> 6173  
agagagagag actagtcttc tcttactcta ggcctttcgg ttgcgcgac ggggcaggaa  
60  
agcgtgcgtg cggctaagag agtgggcgct ctccgcgcgc tgacgatgga agaactggag  
120  
caaggcctgt tgatgcagcc atgggcggtg ctacagcttg cagagaactc cctcttgccc  
180  
aagggtttta tcaccaagca gggctatgcc ttgttggttt cagatcttca acaggtgtgg  
240  
catgaacagg tggacactag tgtggtcagc cagcgagcca aggagctgaa caagcggctc  
300  
actgctcctc ctgcagcttt cctctgtcat ttggataatc tccttcgccc attgttgaag  
360  
gacgctgctc accctagcga agctaccttc tcctgtgatt ggttggcaga tgcactgatt  
420  
ctacgggtgc gaagtgcgt ctctggcctc cccttctatt ggaatttcca ctgcatgcta  
480  
gctagtccct ccctggtctc ccaacatttg attcgtcctc tgatgggcat gagtctggca  
540  
ttacagtgcc aagtggggg gctagcaacg ttacttcata tgaagacct agagatccaa  
600  
gactaccagg agagtggggc tacgctgatt cgagatcgat tgaagacaga accatttgaa  
660  
gaaaattcct tcttgaaca atttatgata gagaaactgc cagaggcatg cagcattggt  
720  
gatggaaagc cctttgtcat gaatctgcag gatctgtata tggcagtcac cacacaagag  
780  
gtccaagtgg gacagaagca tcaaggcgct ggagatcctc atacctcaaa cagtgttcc  
840  
ctgcaaggaa tcgatagcca atgtgtaaac cagccagaac aactggtctc ctgagcccca  
900  
acctctcag cacctgagaa agagtccacg ggtacttcag gccctctgca gagacctcag  
960  
ctgtcaaagg tcaagaggaa gaatccaagg ggtctcttca gttaatctgt tgtggcctca  
1020  
gctgctgagg atggacttgg agaatagctt ccaagcttca ccttgaaaga agcttacatg  
1080  
gcagcaatat ttctaaaata gtgtacagc cagaggcctc ctgtaagggc gagagaactg  
1140  
aagttgatgt tgacaggccc acagggaatt ggccttccct gttcaagtgg aagccagtct  
1200  
ctgagaatcc cgtgctctcc tctcttttgg tggaggttct gtaggttcag gtttctacca  
1260  
tggactttag gtatataggg caagtcagca agaaagcacc acacactcag gaagccttgt  
1320  
ctacctttcc ctagegtctc tagccagcca gcccagata ctctcagag acccacttct  
1380  
ctcttttga tggataaaaa agcactcaca gtccctgctt ttgggattaa aaaacaaaaa  
1440  
gaaaaaaaaa aaaaaaaaaa aaaaaaaaaa cctcatgccg aat  
1483

<210> 6174

<211> 299  
 <212> PRT  
 <213> Homo sapiens

<400> 6174  
 Met Glu Glu Leu Glu Gln Gly Leu Leu Met Gln Pro Trp Ala Trp Leu  
 1 5 10 15  
 Gln Leu Ala Glu Asn Ser Leu Leu Ala Lys Val Phe Ile Thr Lys Gln  
 20 25 30  
 Gly Tyr Ala Leu Leu Val Ser Asp Leu Gln Gln Val Trp His Glu Gln  
 35 40 45  
 Val Asp Thr Ser Val Val Ser Gln Arg Ala Lys Glu Leu Asn Lys Arg  
 50 55 60  
 Leu Thr Ala Pro Pro Ala Ala Phe Leu Cys His Leu Asp Asn Leu Leu  
 65 70 75 80  
 Arg Pro Leu Leu Lys Asp Ala Ala His Pro Ser Glu Ala Thr Phe Ser  
 85 90 95  
 Cys Asp Cys Val Ala Asp Ala Leu Ile Leu Arg Val Arg Ser Glu Leu  
 100 105 110  
 Ser Gly Leu Pro Phe Tyr Trp Asn Phe His Cys Met Leu Ala Ser Pro  
 115 120 125  
 Ser Leu Val Ser Gln His Leu Ile Arg Pro Leu Met Gly Met Ser Leu  
 130 135 140  
 Ala Leu Gln Cys Gln Val Arg Glu Leu Ala Thr Leu Leu His Met Lys  
 145 150 155 160  
 Asp Leu Glu Ile Gln Asp Tyr Gln Glu Ser Gly Ala Thr Leu Ile Arg  
 165 170 175  
 Asp Arg Leu Lys Thr Glu Pro Phe Glu Glu Asn Ser Phe Leu Glu Gln  
 180 185 190  
 Phe Met Ile Glu Lys Leu Pro Glu Ala Cys Ser Ile Gly Asp Gly Lys  
 195 200 205  
 Pro Phe Val Met Asn Leu Gln Asp Leu Tyr Met Ala Val Thr Thr Gln  
 210 215 220  
 Glu Val Gln Val Gly Gln Lys His Gln Gly Ala Gly Asp Pro His Thr  
 225 230 235 240  
 Ser Asn Ser Ala Ser Leu Gln Gly Ile Asp Ser Gln Cys Val Asn Gln  
 245 250 255  
 Pro Glu Gln Leu Val Ser Ser Ala Pro Thr Leu Ser Ala Pro Glu Lys  
 260 265 270  
 Glu Ser Thr Gly Thr Ser Gly Pro Leu Gln Arg Pro Gln Leu Ser Lys  
 275 280 285  
 Val Lys Arg Lys Asn Pro Arg Gly Leu Phe Ser  
 290 295

<210> 6175  
 <211> 349  
 <212> DNA  
 <213> Homo sapiens

<400> 6175  
 acgcgtttgc cgggagatgc ggccgcttcg tcctctgcag ttaagaagct gggcgcgctcg  
 60  
 aggactggga ttctaaatat gcgtgcatta gagaatgact ttttcaattc tcccccaaga  
 120



aaaactgttc agtttgggtg aactgtgaca gaagtcttgc tgaagtacaa aaagggtgaa  
 180  
 acaaatgact ttgagttggt gaagaaccag ctgtagatc cagacataaa gagattgcct  
 240  
 tggttgaata gaagtcaaac agtagtgga gagtatttgg cttttcttgg taatcttgta  
 300  
 tcagcacaga ctgttttctc cagaccgtgt ctcagcatga ttgcttccc  
 349

<210> 6176  
 <211> 90  
 <212> PRT  
 <213> Homo sapiens

<400> 6176  
 Met Arg Ala Leu Glu Asn Asp Phe Phe Asn Ser Pro Pro Arg Lys Thr  
 1 5 10 15  
 Val Gln Phe Gly Gly Thr Val Thr Glu Val Leu Leu Lys Tyr Lys Lys  
 20 25 30  
 Gly Glu Thr Asn Asp Phe Glu Leu Leu Lys Asn Gln Leu Leu Asp Pro  
 35 40 45  
 Asp Ile Lys Arg Leu Pro Trp Leu Asn Arg Ser Gln Thr Val Val Glu  
 50 55 60  
 Glu Tyr Leu Ala Phe Leu Gly Asn Leu Val Ser Ala Gln Thr Val Phe  
 65 70 75 80  
 Leu Arg Pro Cys Leu Ser Met Ile Ala Ser  
 85 90

<210> 6177  
 <211> 1536  
 <212> DNA  
 <213> Homo sapiens

<400> 6177  
 cggcccaacc atggcgctct ccgcggccgg ctgcgtggtg atcggttgga gaattaaaac  
 60  
 tctgtacceca ttgaacaaca gctgctcatt tccccagcc ccagccctg gcatccaccc  
 120  
 ttctagcttt ctgtctctat gggtaacctca gtggagtcac tgggcgaatg ggccatgctg  
 180  
 ttgtccagtg gaggtttcca ggtgaaactc tatgacattg agcaacagca gataaggaac  
 240  
 gccctggaaa acatcagaaa ggagatgaag ttgctggagc aggcagggtc tctgaaaggc  
 300  
 tccctgagtg tggaagagca gctgtcactc atcagtgggt gtcccaatat ccaagaagca  
 360  
 gtagagggtg ccatgcacat tcaggaatgt gttccagaag atctagaact gaagaagaag  
 420  
 atttttgctc agttagattc catcattgat gatcgagtga tcttaagcag ttccacttct  
 480  
 tgtctcatgc cttccaagtt gtttgcctgg ttggtccatg tgaagcaatg catcgtggct  
 540  
 catcctgtga atccgccata ctacatcccg ctggttgagc tggccccca cccggagacg  
 600

gccctacga cagtggacag aaccacgcc ctgatgaaga agattgganc agtgcctcat  
 660  
 gcgagtcag aaggaggtgg ccggcttcgt tctgaaccgc ctgcaatatg caatcatcag  
 720  
 cgaggcctgg cggctagtgg aggaaggaat ncgtgtctcc tagtgacctg gnaccttgtc  
 780  
 atgtcagaag ggttgggcat gcggtatgca ttcattggac ccctggaaac catgcatctc  
 840  
 aatgcagaag gtatgttaag ctactgcgac agatacagcg aaggcataaa acatgtccta  
 900  
 cagacttttg gaccattcc agagttttcc agggccactg ctgagaaggt taaccaggac  
 960  
 atgtgcatga aggtccctga tgaccggag cacttagctg ccaggaggca gtggagggac  
 1020  
 gagtgcctca tgagactcgc caagttgaag agtcaagtgc agccccagtg aatttttgt  
 1080  
 aatgcagctt ccactcctct cattggaggc cctatttggg aacactgcaa gcccttaatc  
 1140  
 agccctctgt gacataggta gcagcccacg gagatcctaa gctggctgtc ttgtgtgcag  
 1200  
 cctgagtggg gtggtgcagg ccggtagtct gcccgctact ttggatcata gcctggggcc  
 1260  
 tggcggcaca gcagcacttg cgttctcggg gctgtcgatt tcctgccacc tgggcagata  
 1320  
 acctggagat ttccaccttt tcttttcagc ttgattgcat ttgactatat tttacagcca  
 1380  
 gtgattgtag ttctatgtta atatgtggca aaatattttt gtaattattt tctaaccct  
 1440  
 ttctgagtac tctggggccc tgcatttatg aggcacctac cttcattttg ctaacgctta  
 1500  
 ttctgaataa aagtttttga ttccttaaaa aaaaaa  
 1536

&lt;210&gt; 6178

&lt;211&gt; 310

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6178

Met Gly Thr Ser Val Glu Ser Leu Gly Glu Trp Ala Met Leu Phe Ala  
 1 5 10 15  
 Ser Gly Gly Phe Gln Val Lys Leu Tyr Asp Ile Glu Gln Gln Ile  
 20 25 30  
 Arg Asn Ala Leu Glu Asn Ile Arg Lys Glu Met Lys Leu Leu Glu Gln  
 35 40 45  
 Ala Gly Ser Leu Lys Gly Ser Leu Ser Val Glu Glu Gln Leu Ser Leu  
 50 55 60  
 Ile Ser Gly Cys Pro Asn Ile Gln Glu Ala Val Glu Gly Ala Met His  
 65 70 75 80  
 Ile Gln Glu Cys Val Pro Glu Asp Leu Glu Leu Lys Lys Lys Ile Phe  
 85 90 95  
 Ala Gln Leu Asp Ser Ile Ile Asp Asp Arg Val Ile Leu Ser Ser  
 100 105 110  
 Thr Ser Cys Leu Met Pro Ser Lys Leu Phe Ala Gly Leu Val His Val

115	120	125
Lys Gln Cys Ile Val Ala	His Pro Val Asn Pro	Pro Tyr Tyr Ile Pro
130	135	140
Leu Val Glu Leu Val Pro	His Pro Glu Thr Ala	Pro Thr Thr Val Asp
145	150	155
Arg Thr His Ala Leu Met	Lys Lys Ile Gly Xaa Val	Pro His Ala Ser
165	170	175
Pro Glu Gly Gly Gly Arg	Leu Arg Ser Glu Pro	Pro Ala Ile Cys Asn
180	185	190
His Gln Arg Gly Leu Ala	Ala Ser Gly Gly Arg Asn	Xaa Cys Leu Leu
195	200	205
Val Thr Trp Xaa Leu Val	Met Ser Glu Gly Leu Gly	Met Arg Tyr Ala
210	215	220
Phe Ile Gly Pro Leu Glu	Thr Met His Leu Asn Ala	Glu Gly Met Leu
225	230	235
Ser Tyr Cys Asp Arg Tyr	Ser Glu Gly Ile Lys His	Val Leu Gln Thr
245	250	255
Phe Gly Pro Ile Pro Glu	Phe Ser Arg Ala Thr Ala	Glu Lys Val Asn
260	265	270
Gln Asp Met Cys Met Lys	Val Pro Asp Asp Pro Glu	His Leu Ala Ala
275	280	285
Arg Arg Gln Trp Arg Asp	Glu Cys Leu Met Arg Leu	Ala Lys Leu Lys
290	295	300
Ser Gln Val Gln Pro Gln		
305	310	

&lt;210&gt; 6179

&lt;211&gt; 2940

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6179

```

nnctgcaggt ggcgcgagg gctacgcgcg gggcgggtgc tgcttgctgc aggctctggg
60
gagtcgccat gcctacaaca cagcagtcct ctcaggatga gcaggaaaag ctcttgatg
120
aagccatata ggctgtgaag gtccagtcac tccaaatgaa gagatgcctg gacaaaaaca
180
agcttatgga tgctctaaaa catgcttcta atatgcttgg tgaactccgg acttctatgt
240
tatcaccaaa gagttactat gaactttata tggccatttc tgatgaactg cactacttgg
300
aggntctacc tgacagatga gtttgctaaa ggaaggaaag tggcagatct ctacgaactt
360
gtacagtatg ctggaaacat tatcccaagg ctttaccttt tgatcacagt tggagttgta
420
tatgtcaagt catttctcga gtccaggaag gatattttga aagatttggt agaaatgtgc
480
cgtggtgtgc aacatccctt gaggggtctg tttcttcgaa attaccttct tcagtgtacc
540
agaaatatct tacctgatga aggagagcca acagatgaag aaacaactgg tgacatcagt
600
gattccatgg attttgtact gctcaacttt gcagaaatga acaagctctg ggtgcgaatg
660

```

cagcatcagg gacatagccg agatagagaa aaaagagaac gaaaaagaca agaactgaga  
720  
attttagtgg gaacaaattt ggtgcgcctc agtnncagtt ggaggtgtaa atgtggaacg  
780  
ttacaacaga ttgttttgac tggcatattg gagcaagttg taaactgtag ggatgctttg  
840  
gctcaagaat atctcatgga gtgtattatt cagggttttc ctgatgaatt tcacctccag  
900  
actttgaatc cttttcttcg ggcctgtgct gagttacacc agaattgaaa tgtgaagaac  
960  
ataatcattg ctttaattga tagattagct ttatttgctc accgtgaaga tggacctgga  
1020  
atcccagcgg atattaaact ttttgatata ttttcacagc aggtggctac agtgatacag  
1080  
tctagacaag acatgccttc agaggatggt gtatctttac aagtctctct gattaatctt  
1140  
gccatgaaat gttaccctga tcgtgtggac tatgttgata aagttctaga aacaacagtg  
1200  
gagatattca ataagctcaa ccttgaacat attgctacca gtagtgcagt ttcaaaggaa  
1260  
ctcaccagac ttttgaat accagttgac acttacaaca atattttaac agtcttgaaa  
1320  
ttaaaccatt ttcaccact ctttgagtac ttgactacg agtccagaaa gagcatgagt  
1380  
tgttatgtgc ttagtaattg tctggattat aacacagaaa ttgtctctca agaccagtg  
1440  
gattccataa tgaatttggt atccacgttg attcaagatc agccagatca acctgtagaa  
1500  
gaccctgatc cagaagattt tgctgatgag cagagccttg tgggcccgtt cattcatctg  
1560  
ctgcgctctg aggacctga ccagcagtag ttgattttga acacagcacg aaaacatttt  
1620  
ggagctgggt gaaatcagcg gattcgcttc acactgccac ctttggtatt tgcagcttac  
1680  
cagctggcct tcgatataa agagaattct aagtggatga caaatgggaa aagaatgcc  
1740  
agaagatttt ttcatttgcc cnaccagact atcagtgcct tgatcaaagc agagctggca  
1800  
gaattgccct taagactttt tcttcaagga gcactagctg ctggggaaat tggttttgaa  
1860  
aatcatgaga cagtcgcata tgaattcatg tcccaggcat tttctctgta tgaagatgaa  
1920  
atcagcgatt ccaaagcaca gctagctgcc atcacctga tcattggcac ttttgaaagg  
1980  
atgaagtgtc tcagtgaaga gaatcatgaa cctctgagga ctcatgtgtc ctttgctgca  
2040  
tccaaacttc taaagaaacc tgatcagggc cgagctgagc acctgtgcac atctctttgg  
2100  
tctggcagaa acacggacaa aaatggggag gagcttcacg gaggcaagag ggtaatggag  
2160  
tgccataaaa aagctctaaa aatagcaaat cagtgcattg acccctctct acaagtgcag  
2220  
ctttttatag aaattctgaa cagatatatc tatttttatg aaaaggaaaa tgatgcggtg  
2280

acaattcagg ttttaaacca gcttatccaa aagattcgag aagacctccc gaattctgaa  
 2340  
 tccagtgaag aaacagagca gattaacaaa cattttcata acacactgga gcatttgcg  
 2400  
 ttgcggcggg aatcaccaga atccgagggg ccaatttatg aagggtctcat cctttaaaaa  
 2460  
 ggaaatagct caccatactc ctttccatgt acatccagtg aggggttttat tacgctaggt  
 2520  
 ttcccttcca tagattgtgc ctttcagaaa tgctgaggta gggttcccat ttcttacctg  
 2580  
 tgatgtgttt taccagcac ctccggacac tcaccttcag gaccttaata aaattattca  
 2640  
 cttggtaagt gttcaagtct ttctgatcac cccaagtagc atgactgac tgcaattttt  
 2700  
 agagcttttt ttaggcactc cattaccctc ttgcctccgt gaagctcctc cccatttttg  
 2760  
 tccgtgtttc tgccagacca gaagagatgt gcacaggtgc tcacagctcg gccctgatca  
 2820  
 gggtttcttta gaagtttgga tgcagcaagg gcacactgag tcctcagagg ttcattgatc  
 2880  
 tcttcaactga agcacttcac cttttcaaaa gtgccaatga tcaaggtgat ggcagctagc  
 2940

<210> 6180

<211> 751

<212> PRT

<213> Homo sapiens

<400> 6180

Met Leu Leu Ile Cys Leu Val Asn Ser Gly Leu Leu Cys Tyr His Gln  
 1 5 10 15  
 Arg Val Thr Met Asn Phe Ile Trp Pro Phe Leu Met Asn Cys Thr Thr  
 20 25 30  
 Trp Arg Xaa Tyr Leu Thr Asp Glu Phe Ala Lys Gly Arg Lys Val Ala  
 35 40 45  
 Asp Leu Tyr Glu Leu Val Gln Tyr Ala Gly Asn Ile Ile Pro Arg Leu  
 50 55 60  
 Tyr Leu Leu Ile Thr Val Gly Val Val Tyr Val Lys Ser Phe Pro Gln  
 65 70 75 80  
 Ser Arg Lys Asp Ile Leu Lys Asp Leu Val Glu Met Cys Arg Gly Val  
 85 90 95  
 Gln His Pro Leu Arg Gly Leu Phe Leu Arg Asn Tyr Leu Leu Gln Cys  
 100 105 110  
 Thr Arg Asn Ile Leu Pro Asp Glu Gly Glu Pro Thr Asp Glu Glu Thr  
 115 120 125  
 Thr Gly Asp Ile Ser Asp Ser Met Asp Phe Val Leu Leu Asn Phe Ala  
 130 135 140  
 Glu Met Asn Lys Leu Trp Val Arg Met Gln His Gln Gly His Ser Arg  
 145 150 155 160  
 Asp Arg Glu Lys Arg Glu Arg Glu Arg Gln Glu Leu Arg Ile Leu Val  
 165 170 175  
 Gly Thr Asn Leu Val Arg Leu Ser Xaa Ser Trp Arg Cys Lys Cys Gly  
 180 185 190  
 Thr Leu Gln Gln Ile Val Leu Thr Gly Ile Leu Glu Gln Val Val Asn

```

      195      200      205
Cys Arg Asp Ala Leu Ala Gln Glu Tyr Leu Met Glu Cys Ile Ile Gln
210      215      220
Val Phe Pro Asp Glu Phe His Leu Gln Thr Leu Asn Pro Phe Leu Arg
225      230      235
Ala Cys Ala Glu Leu His Gln Asn Val Asn Val Lys Asn Ile Ile Ile
      245      250      255
Ala Leu Ile Asp Arg Leu Ala Leu Phe Ala His Arg Glu Asp Gly Pro
260      265      270
Gly Ile Pro Ala Asp Ile Lys Leu Phe Asp Ile Phe Ser Gln Gln Val
275      280      285
Ala Thr Val Ile Gln Ser Arg Gln Asp Met Pro Ser Glu Asp Val Val
290      295      300
Ser Leu Gln Val Ser Leu Ile Asn Leu Ala Met Lys Cys Tyr Pro Asp
305      310      315
Arg Val Asp Tyr Val Asp Lys Val Leu Glu Thr Thr Val Glu Ile Phe
      325      330      335
Asn Lys Leu Asn Leu Glu His Ile Ala Thr Ser Ser Ala Val Ser Lys
340      345      350
Glu Leu Thr Arg Leu Leu Lys Ile Pro Val Asp Thr Tyr Asn Asn Ile
355      360      365
Leu Thr Val Leu Lys Leu Lys His Phe His Pro Leu Phe Glu Tyr Phe
370      375      380
Asp Tyr Glu Ser Arg Lys Ser Met Ser Cys Tyr Val Leu Ser Asn Val
385      390      395
Leu Asp Tyr Asn Thr Glu Ile Val Ser Gln Asp Gln Val Asp Ser Ile
      405      410      415
Met Asn Leu Val Ser Thr Leu Ile Gln Asp Gln Pro Asp Gln Pro Val
420      425      430
Glu Asp Pro Asp Pro Glu Asp Phe Ala Asp Glu Gln Ser Leu Val Gly
435      440      445
Arg Phe Ile His Leu Leu Arg Ser Glu Asp Pro Asp Gln Gln Tyr Leu
450      455      460
Ile Leu Asn Thr Ala Arg Lys His Phe Gly Ala Gly Gly Asn Gln Arg
465      470      475
Ile Arg Phe Thr Leu Pro Pro Leu Val Phe Ala Ala Tyr Gln Leu Ala
      485      490      495
Phe Arg Tyr Lys Glu Asn Ser Lys Trp Met Thr Asn Gly Lys Arg Asn
500      505      510
Ala Arg Arg Phe Phe His Leu Pro Xaa Gln Thr Ile Ser Ala Leu Ile
515      520      525
Lys Ala Glu Leu Ala Glu Leu Pro Leu Arg Leu Phe Leu Gln Gly Ala
530      535      540
Leu Ala Ala Gly Glu Ile Gly Phe Glu Asn His Glu Thr Val Ala Tyr
545      550      555
Glu Phe Met Ser Gln Ala Phe Ser Leu Tyr Glu Asp Glu Ile Ser Asp
565      570      575
Ser Lys Ala Gln Leu Ala Ala Ile Thr Leu Ile Ile Gly Thr Phe Glu
580      585      590
Arg Met Lys Cys Phe Ser Glu Glu Asn His Glu Pro Leu Arg Thr Gln
595      600      605
Cys Ala Leu Ala Ala Ser Lys Leu Leu Lys Lys Pro Asp Gln Gly Arg
610      615      620
Ala Glu His Leu Cys Thr Ser Leu Trp Ser Gly Arg Asn Thr Asp Lys

```

```

625          630          635          640
Asn Gly Glu Glu Leu His Gly Gly Lys Arg Val Met Glu Cys Leu Lys
          645          650          655
Lys Ala Leu Lys Ile Ala Asn Gln Cys Met Asp Pro Ser Leu Gln Val
          660          665          670
Gln Leu Phe Ile Glu Ile Leu Asn Arg Tyr Ile Tyr Phe Tyr Glu Lys
          675          680          685
Glu Asn Asp Ala Val Thr Ile Gln Val Leu Asn Gln Leu Ile Gln Lys
          690          695          700
Ile Arg Glu Asp Leu Pro Asn Leu Glu Ser Ser Glu Glu Thr Glu Gln
705          710          715          720
Ile Asn Lys His Phe His Asn Thr Leu Glu His Leu Arg Leu Arg Arg
          725          730          735
Glu Ser Pro Glu Ser Glu Gly Pro Ile Tyr Glu Gly Leu Ile Leu
          740          745          750

```

```

<210> 6181
<211> 1135
<212> DNA
<213> Homo sapiens

```

```

<400> 6181
gccaaagcgct actcctgggtc cggcatgggc cgcattccaca agggcatccg cgagcagggc
60
cggtaacctca acagccggcc ctccatccag aagcccgagg tcttcttctt gcccgaacctg
120
cccaccacgc cctatttctc cgggacgca cagaaacatg atgtggaagt gctggaacgg
180
aacttcaga ccatcctgtg tgagtgtgag accctctaca aagcttctc aaactgcagc
240
ctcccgcaag gatggaat gaacagcacc ccagcgggg agtggttcac cttttacttg
300
gtcaatcagg ggggttgtgt tcccaggaac ttaggaagt gccacggac gtaccgcttg
360
ctcggaagcc ttcggacctg tattgggaac aatgtttttg ggaacgcgtg catctctgtg
420
ctgagccctg ggactgtgat aacggagcac tatggacca ccaacatccg catccgatgc
480
catttaggtc tgaaaactcc aaatggctgt gagctggtgg tggggggaga gcccagtg
540
tgggcagaag ggcgctgcct tctctttgat gactcttcc tgcagtctgc gttccatgaa
600
ggttcagcag aggatggccc acgggtggtt ttcattggtg atttgtggca tccaaacgtc
660
gcagcggccg aacggcaggc tcttgatttc atctttgtc cgggacgatg agagtatttc
720
ccatgctgga gtcggcgaga agggccgagg cggggcctgg gcagactgtg gtccggtcca
780
gtccctaccg gtgtgttttc catgctcaga aacctgcctc agcggaaagc tcttatttgg
840
gattttatat catgtcgggt ccctctttcc cttggttatt gtaaatggaa acttttcggc
900
ttgtatttcc ttagattttt ttttttttcc tccaatcatt tgcttcagag actcctttct
960

```

ggcctaacag cgcattectt tgattgggcc ttgagtgacc agagacttag tgcccttgta  
 1020  
 agtctgtctt ctgttgctac ttgttttttt cagtgtcttg aaatagagta actaaatggg  
 1080  
 tatttgtctg aatataataa tgtaaaactt cttgtgggtca tcttaaaaaa aaaaa  
 1135

<210> 6182  
 <211> 236  
 <212> PRT  
 <213> Homo sapiens

<400> 6182  
 Ala Lys Arg Tyr Ser Trp Ser Gly Met Gly Arg Ile His Lys Gly Ile  
 1 5 10 15  
 Arg Glu Gln Gly Arg Tyr Leu Asn Ser Arg Pro Ser Ile Gln Lys Pro  
 20 25 30  
 Glu Val Phe Leu Pro Asp Leu Pro Thr Thr Pro Tyr Phe Ser Arg  
 35 40 45  
 Asp Ala Gln Lys His Asp Val Glu Val Leu Glu Arg Asn Phe Gln Thr  
 50 55 60  
 Ile Leu Cys Glu Phe Glu Thr Leu Tyr Lys Ala Phe Ser Asn Cys Ser  
 65 70 75 80  
 Leu Pro Gln Gly Trp Lys Met Asn Ser Thr Pro Ser Gly Glu Trp Phe  
 85 90 95  
 Thr Phe Tyr Leu Val Asn Gln Gly Val Cys Val Pro Arg Asn Cys Arg  
 100 105 110  
 Lys Cys Pro Arg Thr Tyr Arg Leu Leu Gly Ser Leu Arg Thr Cys Ile  
 115 120 125  
 Gly Asn Asn Val Phe Gly Asn Ala Cys Ile Ser Val Leu Ser Pro Gly  
 130 135 140  
 Thr Val Ile Thr Glu His Tyr Gly Pro Thr Asn Ile Arg Ile Arg Cys  
 145 150 155 160  
 His Leu Gly Leu Lys Thr Pro Asn Gly Cys Glu Leu Val Val Gly Gly  
 165 170 175  
 Glu Pro Gln Cys Trp Ala Glu Gly Arg Cys Leu Leu Phe Asp Asp Ser  
 180 185 190  
 Phe Leu His Ala Ala Phe His Glu Gly Ser Ala Glu Asp Gly Pro Arg  
 195 200 205  
 Val Val Phe Met Val Asp Leu Trp His Pro Asn Val Ala Ala Ala Glu  
 210 215 220  
 Arg Gln Ala Leu Asp Phe Ile Phe Ala Pro Gly Arg  
 225 230 235

<210> 6183  
 <211> 2530  
 <212> DNA  
 <213> Homo sapiens

<400> 6183  
 acgcgtcggc cgctggggcg ttgagcaagt gcgaccccg agtcatttgg gctgggggtg  
 60  
 gaggattagc atctgccatt gactcgcatt aaagggccca gcgtctcgcg tgagaggttg  
 120



aggttgtgtt gcgggggtcg ggtagctgta ggtcttagaa atggcatcaa aggtggcctt  
180  
ggcgaagtgt cccaggggtg cagtgcagcc ccgggctgag gtgtagcagt catcgatacc  
240  
agccatcatg agcagcttct taggcacagg tgcggagacg atgccagtgc ccctgggtgc  
300  
agggatgagg cgtaccagca cagagccgca gcggcctgtc acctggtgag ggaaggagtc  
360  
aggagacggg ggcccagagg agcctgcccc acggcaggcc catcacctgc caccagccta  
420  
ccttgcaagg gacagtgtgg ggcttgccga tcttggtccc ccagtagcct ctgcgcacgg  
480  
ggacgatgga gagcttggcc aggatgatgg cccacggat ggcggtggcc acctccttgg  
540  
agcacttaac acccagaccg acgtggccat tgtagtcccc gatagcaaca aatgccttga  
600  
acctggtgag ctggccggca cgggtctgct tctgcactgg cataatcttc aaaacctcat  
660  
ccttgagaga ggccccagg aaaaagtcaa tgatctctga ttccttaatg ggcagagaga  
720  
agagatagat ctctccagg gacttgatct tcatgtcctt gaccaagcgg cccaacttgg  
780  
tgacgggcat ccactcctta tctcggcct tgcctcgcg agctccgcg cctcggcccc  
840  
ggccccgtcc acggccgca ccccgccctt ggtggccctg ggatgggaa ccgcggtggc  
900  
ttccgcggag gtttcggcag tggcatccgg ggccggggtc gcggccgtg acggggccgg  
960  
ggccgaggcc gcggagctcg cggaggcaag gccgaggata aggagtggat gcccgtcacc  
1020  
aagtgggccc gcttggtcaa ggacatgaag atcaagtccc tggaggagat ctatctcttc  
1080  
tccctgcccc ttaaggaatc agagatcatt gatttcttcc tgggggcctc tctcaaggat  
1140  
gaggttttga agattatgcc agtgcagaag cagaccctg ccggccagcg caccagggtc  
1200  
aaggcatttg ttgtatcgg ggactacaat ggccacgtcg gtctgggtgt taagtgtccc  
1260  
aaggaggtgg ccaccgccat ccgtggggcc atcatcctgg ccaagctctc catcgteccc  
1320  
gtgcgcagag gctactgggg gaacaagatc ggcaagcccc aactgtccc ttgcaagggtg  
1380  
acaggccgct gcggctctgt gctggtacgc ctcatcctg caccagggg cactggcacc  
1440  
gtctccgcac ctgtgcctaa gaagctgctc atgatggctg gtatcgatga ctgctacacc  
1500  
tcagccggg gctgcactgc caccctgggc aacttcgcca aggccacctt tgatgccatt  
1560  
tctaagacct acagctacct gacccccgac ctctggaagg agactgtatt caccaagtct  
1620  
ccctatcagg agttcactga ccacctcgtc aagaccaca ccagagtcct cgtgcagcgg  
1680  
actcaggctc cagctgtggc tacaacatag ggtttttata caagaaaaat aaagtgaatt  
1740

aagctgtcac cccacatg agaaaagagt cttttggttc tttttaacat aagtgattag  
 1800  
 tttaagagta tgctgaggag ccactgggct taaagaagga tgtaataag acccaaatac  
 1860  
 atagggaacca ggcgtgctt tctcatgttc aaaaaagcag tcctccacca ctgaactcca  
 1920  
 ttctctcagg gggctcaatg aaggctaacc aatccgatgc atgtgtaggc aacagtccca  
 1980  
 tggactggca cttgtaaaca gccaatgcca aacccatcag gttcccaatg agatagacca  
 2040  
 aaccctgaag aaacttctgg cttgaacttt ctaacatctt gaaagtggct gaaatggcca  
 2100  
 taagtgcctg aatgggtcgc caggccatca tacacacat catagtaggg aagatggaga  
 2160  
 tagtattgcc tgccatgtac atgatgaaga gattcatggg aatctgtttg aggggaccca  
 2220  
 aggcgatgac ccagcagcgc ttctccacca ggatccgggc tgtctcttgc acgctgggat  
 2280  
 caggcacttg cttgtccaag taaccgactg ggtagagcga gtctccctgg ccaactgccc  
 2340  
 ggtcacttcg acccctgctg cctcctccag gcccgcttag ctcaatggcc cactgaagc  
 2400  
 gccggcctcg gttagccacc agggccccct gggccgctcat ggcaacagct gcgtcctata  
 2460  
 gcctcgatgc ttctcagtc aaagcgact ccacaacagg cccaccagcg ttctccgctt  
 2520  
 tgtctcaccc  
 2530

<210> 6184  
 <211> 308  
 <212> PRT  
 <213> Homo sapiens

<400> 6184  
 Arg Ala Ser Thr Pro Tyr Leu Arg Pro Cys Leu Arg Glu Leu Arg Gly  
 1 5 10 15  
 Leu Gly Pro Gly Pro Val His Gly Arg Asp Pro Gly Pro Gly Gly Pro  
 20 25 30  
 Gly Met Gly Asn Arg Gly Gly Phe Arg Gly Gly Phe Gly Ser Gly Ile  
 35 40 45  
 Arg Gly Arg Gly Arg Gly Arg Gly Arg Gly Arg Gly Arg Gly  
 50 55 60  
 Ala Arg Gly Gly Lys Ala Glu Asp Lys Glu Trp Met Pro Val Thr Lys  
 65 70 75 80  
 Leu Gly Arg Leu Val Lys Asp Met Lys Ile Lys Ser Leu Glu Glu Ile  
 85 90 95  
 Tyr Leu Phe Ser Leu Pro Ile Lys Glu Ser Glu Ile Ile Asp Phe Phe  
 100 105 110  
 Leu Gly Ala Ser Leu Lys Asp Glu Val Leu Lys Ile Met Pro Val Gln  
 115 120 125  
 Lys Gln Thr Arg Ala Gly Gln Arg Thr Arg Phe Lys Ala Phe Val Ala  
 130 135 140  
 Ile Gly Asp Tyr Asn Gly His Val Gly Leu Gly Val Lys Cys Ser Lys

```

145          150          155          160
Glu Val Ala Thr Ala Ile Arg Gly Ala Ile Ile Leu Ala Lys Leu Ser
          165          170          175
Ile Val Pro Val Arg Arg Gly Tyr Trp Gly Asn Lys Ile Gly Lys Pro
          180          185          190
His Thr Val Pro Cys Lys Val Thr Gly Arg Cys Gly Ser Val Leu Val
          195          200          205
Arg Leu Ile Pro Ala Pro Arg Gly Thr Gly Ile Val Ser Ala Pro Val
          210          215          220
Pro Lys Lys Leu Leu Met Met Ala Gly Ile Asp Asp Cys Tyr Thr Ser
          225          230          235          240
Ala Arg Gly Cys Thr Ala Thr Leu Gly Asn Phe Ala Lys Ala Thr Phe
          245          250          255
Asp Ala Ile Ser Lys Thr Tyr Ser Tyr Leu Thr Pro Asp Leu Trp Lys
          260          265          270
Glu Thr Val Phe Thr Lys Ser Pro Tyr Gln Glu Phe Thr Asp His Leu
          275          280          285
Val Lys Thr His Thr Arg Val Ser Val Gln Arg Thr Gln Ala Pro Ala
          290          295          300
Val Ala Thr Thr
305

```

```

<210> 6185
<211> 1231
<212> DNA
<213> Homo sapiens

```

```

<400> 6185
cacagcttgt tcctaggaag ggcttagcaa acgggggtgg ttgtccttct tggaagccac
60
atttgtttgc ctggtgagtg gtggagggca ctgctaggcc tgctagggct gacacggcca
120
gagtcagatg acctcatctc acatccagca ggtgaaatgc agtctttgat cccttgaaac
180
ccaccctcta ggaccaaggt cactgcagta ttggatagga cctcaggagg ttagcagggg
240
gtcatggtt aagagtgtga actacagctt agacctacag gggtccctgc ccagctcctc
300
cacaaaccag ctgtgcaacc ctagacaagt gagttaatgt cctgggcct cagtttcttc
360
ttagtaaaat gtgtgtagcc atagagggct gttatgagga ttcagtcaaa tgacacatga
420
tgtcttgggc acacctggcg tggattatgg cgcctgtagg agcaggaggg ctctctggag
480
gaggggggcta gttgaacaga gtctagaaag tatagattgg gaagagcact ctgggaggca
540
ggatcaccat gtgcaaaggc tcagagaatg ccaccacta cctcctggaa atcaagggga
600
ttctgttgtt ccaagggcat tgggtgtctc taggcccccg acctgtgtct gggaggtgtc
660
aaggggaagc cagatccgag gccacactt gcatgttttc aggtgaggtc cagagatata
720
tccagagagg agtggaaggg ctcgagacc tacagcccca atactgcata tgggtgtggac
780

```

ttcctgggtgc ccgtgatggg ctatatctgc cgcattctgcc acaagttcta tcacagcaac  
 840  
 tcagggggcac agctctccca ctgcaagtcc ctggggccact ttgagaacct gcagaaatac  
 900  
 aaggcggcca agaaccacag cccaccacc cgacctgtga gccgccggtg cgcaatcaac  
 960  
 gcccggaacg ctttgacagc cctgttcacc tccagcggcc gccaccctc ccagcccaac  
 1020  
 acccaggaca aaacaccag caaggtgacg gctcgaccct cccagccccc actacctcg  
 1080  
 cgctcaaccc gcctcaaac ctgatagagg gacctccctg tccctggcct gcctgggtcc  
 1140  
 agatctgcta atgcttttta ggagtctgcc tggaaacttt gacatggttc atgtttttac  
 1200  
 tcaaaatcca ataaaacaag gtaagtttgg c  
 1231

<210> 6186  
 <211> 133  
 <212> PRT  
 <213> Homo sapiens

<400> 6186  
 Val Arg Ser Arg Asp Ile Ser Arg Glu Glu Trp Lys Gly Ser Glu Thr  
 1 5 10 15  
 Tyr Ser Pro Asn Thr Ala Tyr Gly Val Asp Phe Leu Val Pro Val Met  
 20 25 30  
 Gly Tyr Ile Cys Arg Ile Cys His Lys Phe Tyr His Ser Asn Ser Gly  
 35 40 45  
 Ala Gln Leu Ser His Cys Lys Ser Leu Gly His Phe Glu Asn Leu Gln  
 50 55 60  
 Lys Tyr Lys Ala Ala Lys Asn Pro Ser Pro Thr Thr Arg Pro Val Ser  
 65 70 75 80  
 Arg Arg Cys Ala Ile Asn Ala Arg Asn Ala Leu Thr Ala Leu Phe Thr  
 85 90 95  
 Ser Ser Gly Arg Pro Pro Ser Gln Pro Asn Thr Gln Asp Lys Thr Pro  
 100 105 110  
 Ser Lys Val Thr Ala Arg Pro Ser Gln Pro Pro Leu Pro Arg Arg Ser  
 115 120 125  
 Thr Arg Leu Lys Thr  
 130

<210> 6187  
 <211> 909  
 <212> DNA  
 <213> Homo sapiens

<400> 6187  
 nagtcctccc aaagtacttg tgtccgggtg gtggactgga ttcgctgcgg agccctggaa  
 60  
 gctgcctttc cttctccctg tgcttaacca gaggtgccca tgggttgac aatgaggctg  
 120  
 gtcacagcag cactgttact ggggtctcatg atgggtgtca ctggagacga ggatgagaac  
 180

agccccgtgtg cccatgaggc cctcttggac gaggacaccc tcttttgcca gggccttgaa  
 240  
 gttttctacc cagagttggg gaacattggc tgcaaggttg ttcctgattg taacaactac  
 300  
 agacagaaga tcacctcctg gatggagccg atagtcaagt tcccgggggc cgtgtacggc  
 360  
 gcaacctata tcctggtgat ggtggatcca gatgcccta gcagagcaga acccagacag  
 420  
 agattctgga gacattggct ggtaacagat atcaagggcg ccgacctgaa gaaagggaag  
 480  
 attcagggcc aggagttatc agcctaccag gctccctccc caccggcaca cagtggcttc  
 540  
 catcgctacc agttctttgt ctatcttcag gaaggaaaag tcattctctct ctttcccaag  
 600  
 gaaaacaaaa ctcgaggctc ttggaataag gacagatttc tgaaccgttt ccacctgggc  
 660  
 gaacctgaag caagcaccca gttcatgacc cagaactacc aggactcacc aaccctccag  
 720  
 gctcccagag aaagggccag cgagcccaag cacaaaaacc aggcggagat agctgcctgc  
 780  
 tagatagccg gctttgccat ccgggcatgt ggccacactg cccaccaccg acgatgtggg  
 840  
 tatggaaccc cctctggata cagaaccctt tcttttccaa attaaaaaaaa aaaatcatcc  
 900  
 agggcaaaa  
 909

<210> 6188

<211> 227

<212> PRT

<213> Homo sapiens

<400> 6188

Met	Gly	Trp	Thr	Met	Arg	Leu	Val	Thr	Ala	Ala	Leu	Leu	Leu	Gly	Leu
1				5				10						15	
Met	Met	Val	Val	Thr	Gly	Asp	Glu	Asp	Glu	Asn	Ser	Pro	Cys	Ala	His
			20					25					30		
Glu	Ala	Leu	Leu	Asp	Glu	Asp	Thr	Leu	Phe	Cys	Gln	Gly	Leu	Glu	Val
		35					40					45			
Phe	Tyr	Pro	Glu	Leu	Gly	Asn	Ile	Gly	Cys	Lys	Val	Val	Pro	Asp	Cys
	50					55				60					
Asn	Asn	Tyr	Arg	Gln	Lys	Ile	Thr	Ser	Trp	Met	Glu	Pro	Ile	Val	Lys
	65				70				75					80	
Phe	Pro	Gly	Ala	Val	Tyr	Gly	Ala	Thr	Tyr	Ile	Leu	Val	Met	Val	Asp
			85					90					95		
Pro	Asp	Ala	Pro	Ser	Arg	Ala	Glu	Pro	Arg	Gln	Arg	Phe	Trp	Arg	His
		100					105					110			
Trp	Leu	Val	Thr	Asp	Ile	Lys	Gly	Ala	Asp	Leu	Lys	Lys	Gly	Lys	Ile
		115				120					125				
Gln	Gly	Gln	Glu	Leu	Ser	Ala	Tyr	Gln	Ala	Pro	Ser	Pro	Pro	Ala	His
	130					135				140					
Ser	Gly	Phe	His	Arg	Tyr	Gln	Phe	Phe	Val	Tyr	Leu	Gln	Glu	Gly	Lys
	145			150					155				160		
Val	Ile	Ser	Leu	Leu	Pro	Lys	Glu	Asn	Lys	Thr	Arg	Gly	Ser	Trp	Lys

	165		170		175										
Met	Asp	Arg	Phe	Leu	Asn	Arg	Phe	His	Leu	Gly	Glu	Pro	Glu	Ala	Ser
	180		185		190										
Thr	Gln	Phe	Met	Thr	Gln	Asn	Tyr	Gln	Asp	Ser	Pro	Thr	Leu	Gln	Ala
	195		200		205										
Pro	Arg	Glu	Arg	Ala	Ser	Glu	Pro	Lys	His	Lys	Asn	Gln	Ala	Glu	Ile
	210		215		220										
Ala	Ala	Cys													
225															

<210> 6189  
 <211> 2761  
 <212> DNA  
 <213> Homo sapiens

<400> 6189  
 ngccgcgctg gcattttctc ctggacaagg agagagtgcg gctgctgaga gccgagccca  
 60  
 gcaatccccg tccctctgagt cgtgaagaag ggaggcagcg aggggggttg ggttggggcc  
 120  
 tgaggcaagc cccagggctc cgctcttgcc agagggacag gagccatggc tcagaaaatg  
 180  
 gactgtgggt cgggcctcct cggcttccag gctgaggcct ccgtagaaga cagcgccttg  
 240  
 cttatgcaga ccttgatgga ggccatccag atctcagagg ctccacctac taaccaggcc  
 300  
 accgcagctg ctagtcccca gagttcacag cccccaactg ccaatgagat ggctgacatt  
 360  
 caggtttcag cagctgccgc taggcctaag tcagccttta aagtcagaa tgccaccaca  
 420  
 aaaggcccaa atggtgtcta tgattttctc caggctcata atgccaagga tgtgccaac  
 480  
 acgcagccca aggcagcctt taagtcccaa aatgctaccc caaagggtcc aaatgctgcc  
 540  
 tatgattttt cccaggcagc aaccactggg gagtttagctg ctaacaagtc tgagatggcc  
 600  
 ttcaaggccc agaatgccac tactaaagtg ggcccaaatg ccacctacaa tttctctcag  
 660  
 tctctcaatg ccaatgacct ggccaacagc aggcctaaga ccccttcaa ggcttggaat  
 720  
 gataccacta agggcccaac agctgatacc cagaccaga atgtaaatca ggccaaaatg  
 780  
 gccacttccc aggtgacat agagaccgac ccaggatatc ctgaacctga cggtgcaact  
 840  
 gcacagacat cagcagatgg ttcccaggct cagaatctgg agtcccggac aataattcgg  
 900  
 ggcaagagga cccgcaagat taataacttg aatgttgaag agaacagcag tggggatcag  
 960  
 aggcggggccc cactgggtgc agggacctgg aggtctgcac cagttccagt gaccactcag  
 1020  
 aaccacctg gcgcaccccc caatgtgtc tggcagacgc cattggcttg gcagaacccc  
 1080  
 tcaggctggc aaaaccagac agccaggcag accccaccag cagctcagag cctccagct  
 1140

aggcagaccc caccagcctg gcagacccag aaccagtcg cttggcagaa cccagtgtt  
1200  
tggccaaacc cagtaatctg gcagaacca gtgatctggc caaaccccat tgtctggccc  
1260  
ggccctgttg tctggccgaa tccactggcc tggcagaatc cacctggatg gcagactcca  
1320  
cctggatggc agacccacc gggctggcag ggtcctccag actggcaagg tcctctgac  
1380  
tggccgctac caccgactg gccactgcc cctgattggc cacttccac tgactggcca  
1440  
ctaccacctg actggatccc cgctgattgg ccaattccac ctgactggca gaacctgcgc  
1500  
ccctgccta acctgcgcc ttctccaac tcgctgcct cacagaacct aggtgctgca  
1560  
cagccccgag atgtggccct tcttcaggaa agagcaaata agttggtaa gtacttgatg  
1620  
cttaaggact acacaaagg gcccataag cgctcagaaa tgctgagaga tatcatccgt  
1680  
gaatacactg atgtttatcc agaaatcatt gaacgtgcat gctttgtcct agagaagaaa  
1740  
tttgggattc aactgaaaga aattgacaaa gaagaacacc tgtatatct catcagtacc  
1800  
cccgagtccc tgggtggcat actgggaacg accaaagaca caccaagct cggctctctc  
1860  
ttggtgattc tgggtgtcat cttcatgaat ggcaaccgtg ccagtgggc tgctctctgg  
1920  
gaggcactac gcaagatggg actgcgtcct ggggtgagac atccccctt tggagatcta  
1980  
aggaaacttc tcacctatga gtttgtaaag cagaaatacc tggactacag acgagtggcc  
2040  
aacagcaacc ccccgagta tgagtctctc tggggcctcc gtctctacca tgagactagc  
2100  
aagatgaaag tgctgagatt cattgcagag gttcagaaaa gagaccctcg tgactggact  
2160  
gcacagttca tggaggctgc agatgaggcc ttggatgctc tggatgctgc tgcagctgag  
2220  
gccgaagccc gggctgaagc aagaaccgc atgggaattg gagatgaggc tgtgtctggg  
2280  
ccctggagct gggatgacat tgagtttgag ctgctgacct gggatgagga aggagatttt  
2340  
ggagatccct ggtccagaat tccatttacc ttctgggcca gataccacca gaatgcccg  
2400  
tccagattcc ctcagacctt tgccgggtccc attattggc ctggtggtag agccagtgcc  
2460  
aacttcgctg ccaactttgg tgccattggg ttcttctggg ttgagtgaaga tgggtggatat  
2520  
tgctatcaat cgcatgagtc ttccctctgt gtgaggctga agcctcagat tccttctaaa  
2580  
cacagctatc tagagagcca catcctgttg actgaaagtg gcatgcaaga taaatttatt  
2640  
tgctgttctc tgtctactgc tttttttccc ctgtgtgtct gtcaagtttt ggtatcagaa  
2700  
ataaacattg aaattgcaaa gtgaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa  
2760

a

2761

&lt;210&gt; 6190

&lt;211&gt; 576

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6190

```

Met Ala Thr Ser Gln Ala Asp Ile Glu Thr Asp Pro Gly Ile Ser Glu
 1           5           10           15
Pro Asp Gly Ala Thr Ala Gln Thr Ser Ala Asp Gly Ser Gln Ala Gln
 20           25           30
Asn Leu Glu Ser Arg Thr Ile Ile Arg Gly Lys Arg Thr Arg Lys Ile
 35           40           45
Asn Asn Leu Asn Val Glu Glu Asn Ser Ser Gly Asp Gln Arg Arg Ala
 50           55           60
Pro Leu Ala Ala Gly Thr Trp Arg Ser Ala Pro Val Pro Val Thr Thr
 65           70           75           80
Gln Asn Pro Pro Gly Ala Pro Pro Asn Val Leu Trp Gln Thr Pro Leu
 85           90           95
Ala Trp Gln Asn Pro Ser Gly Trp Gln Asn Gln Thr Ala Arg Gln Thr
100           105           110
Pro Pro Ala Arg Gln Ser Pro Pro Ala Arg Gln Thr Pro Pro Ala Trp
115           120           125
Gln Thr Gln Asn Pro Val Ala Trp Gln Asn Pro Val Ile Trp Pro Asn
130           135           140
Pro Val Ile Trp Gln Asn Pro Val Ile Trp Pro Asn Pro Ile Val Trp
145           150           155           160
Pro Gly Pro Val Val Trp Pro Asn Pro Leu Ala Trp Gln Asn Pro Pro
165           170           175
Gly Trp Gln Thr Pro Pro Gly Trp Gln Thr Pro Pro Gly Trp Gln Gly
180           185           190
Pro Pro Asp Trp Gln Gly Pro Pro Asp Trp Pro Leu Pro Pro Asp Trp
195           200           205
Pro Leu Pro Pro Asp Trp Pro Leu Pro Thr Asp Trp Pro Leu Pro Pro
210           215           220
Asp Trp Ile Pro Ala Asp Trp Pro Ile Pro Pro Asp Trp Gln Asn Leu
225           230           235           240
Arg Pro Ser Pro Asn Leu Arg Pro Ser Pro Asn Ser Arg Ala Ser Gln
245           250           255
Asn Pro Gly Ala Ala Gln Pro Arg Asp Val Ala Leu Leu Gln Glu Arg
260           265           270
Ala Asn Lys Leu Val Lys Tyr Leu Met Leu Lys Asp Tyr Thr Lys Val
275           280           285
Pro Ile Lys Arg Ser Glu Met Leu Arg Asp Ile Ile Arg Glu Tyr Thr
290           295           300
Asp Val Tyr Pro Glu Ile Ile Glu Arg Ala Cys Phe Val Leu Glu Lys
305           310           315           320
Lys Phe Gly Ile Gln Leu Lys Glu Ile Asp Lys Glu Glu His Leu Tyr
325           330           335
Ile Leu Ile Ser Thr Pro Glu Ser Leu Ala Gly Ile Leu Gly Thr Thr
340           345           350
Lys Asp Thr Pro Lys Leu Gly Leu Leu Leu Val Ile Leu Gly Val Ile

```

5371



```

      355      360      365
Phe Met Asn Gly Asn Arg Ala Ser Glu Ala Val Leu Trp Glu Ala Leu
370      375      380
Arg Lys Met Gly Leu Arg Pro Gly Val Arg His Pro Leu Leu Gly Asp
385      390      395      400
Leu Arg Lys Leu Leu Thr Tyr Glu Phe Val Lys Gln Lys Tyr Leu Asp
      405      410      415
Tyr Arg Arg Val Pro Asn Ser Asn Pro Pro Glu Tyr Glu Phe Leu Trp
      420      425      430
Gly Leu Arg Ser Tyr His Glu Thr Ser Lys Met Lys Val Leu Arg Phe
      435      440      445
Ile Ala Glu Val Gln Lys Arg Asp Pro Arg Asp Trp Thr Ala Gln Phe
      450      455      460
Met Glu Ala Ala Asp Glu Ala Leu Asp Ala Leu Asp Ala Ala Ala Ala
      465      470      475      480
Glu Ala Glu Ala Arg Ala Glu Ala Arg Thr Arg Met Gly Ile Gly Asp
      485      490      495
Glu Ala Val Ser Gly Pro Trp Ser Trp Asp Asp Ile Glu Phe Glu Leu
      500      505      510
Leu Thr Trp Asp Glu Glu Gly Asp Phe Gly Asp Pro Trp Ser Arg Ile
      515      520      525
Pro Phe Thr Phe Trp Ala Arg Tyr His Gln Asn Ala Arg Ser Arg Phe
      530      535      540
Pro Gln Thr Phe Ala Gly Pro Ile Ile Gly Pro Gly Gly Thr Ala Ser
      545      550      555      560
Ala Asn Phe Ala Ala Asn Phe Gly Ala Ile Gly Phe Phe Trp Val Glu
      565      570      575

```

<210> 6191  
 <211> 3021  
 <212> DNA  
 <213> Homo sapiens

```

<400> 6191
ctttgagaag gaacctgtcc cctcagggat taagcaagca cagccctagt tgcacacca
60
gcatgaaaag tcctggaatc tctcagagat gaacctgtgt atgggagttt tgcttaagtg
120
gtacttcaag aaggtgcctc tgtttacttt ggttttgcac tgccatgcga ccaggtggtg
180
caggtctccc aaatgccacc cccctccaag cttccctett tgctctaagt cctcaggcct
240
cctgggcctg ggacagatgg ttgtttgtgt catcaggact cgtgggggtc tatgcgtgga
300
gcactcacgc cagcctaagc tgggatccca gctcagaggt caggccatgt tgggatgttt
360
aggggaagtg atgcattatc aggagacata tctactgtcc cctgccctgt acccccaggc
420
attgatctgg agaacattgt gtactacaag gacgacaccc actactttgt gatgacagcc
480
aagaagcagt gcctgctgcy gctgggggtg ctgcgccagg actggccaga caccaatcgg
540
ctgctgggca gtgccaatgt ggtgaccgag gctctgcagc gctttaccgc ggcagctgct
600

```

gactttgccca cccatggcaa gctcgggaaa ctagagtttg cccaggatgc ccatgggcag  
660  
cctgatgtct ctgcctttga cttcacgagc atgatgcggg cagagagttc tgctcgtgtg  
720  
caagagaagc atggcgcccg cctgctgctg ggactggtgg gggactgcct ggtggagccc  
780  
ttctggcccc tgggcactgg agtggcacgg ggcttcctgg cagcctttga tgcagcctgg  
840  
atggtgaagc ggtgggcaga gggcgctgag tccctagagg tgttggtga gcgtgagagc  
900  
ctgtaccagc ttctgtcaca gacatcccca gaaaacatgc atcgcaatgt ggcccagtat  
960  
gggctggacc cagccacccg ctaccccaac ctgaacctcc gggcagtgac ccccaatcag  
1020  
gtacgagacc tgtatgatgt gctagccaag gagcctgtgc agaggaacaa cgacaagaca  
1080  
gatacagggg tgcacgccac cgggtcggca ggcacccagg aggagctgct acgctggtgc  
1140  
caggagcaga cagctgggta cccgggagtc cacgtctccg atttgtcttc ctctggggct  
1200  
gatgggctag ctctgtgtgc cctggtgtac cggctgcagc ctggcctgct ggaacctca  
1260  
gagctgcagg ggtgggagc tctggaagca actgcttggg cactaaaggt ggcagagaat  
1320  
gagctgggca tcacaccggt ggtgtctgca caggccgtgg tagcagggag tgaccactg  
1380  
ggcctcattg cctacctcag ccacttcac agtgccttca agagcatggc ccacagccca  
1440  
ggcctgttca gccaggcctc cccagggacc tccagtgtg tattattcct tagtaaacct  
1500  
cagaggaccc tgcagcgatc ccgggccaag gacttattgc aggaaaatgc agaggatgtc  
1560  
ggtggcaaga agctgcgctt ggagatggag gccgagacc caagtactga ggtgccacct  
1620  
gaccagagc ctggtgtacc cctgacaccc ccataccaac accaggaggc cgggtgtggg  
1680  
gacctgtgtg cactttgtgg ggaacacctc tatgtcctgg aacgcctctg tgtcaacggc  
1740  
cattttcttc accggagctg cttccgctgc catacctgtg aggccacact gtggccaggt  
1800  
ggctatgagc agcaccagc agatggacat ttctactgcc tccagcacct gcccagaca  
1860  
gaccacaaag cggaaggcag cgatagaggc cctgagagtc cggagctccc cacaccaagt  
1920  
gagaatagca tgccaccagg cctctcaact cccacagcct cgcaggaggg ggcgggtcct  
1980  
gttccagatc ccagccagcc caccgcctgg cagatccgcc tctccagccc ggagcgccag  
2040  
cggttgtect ccettaacct taccctgac ccggaaatgg agcctccacc caagcctccc  
2100  
cgcagctgct ccgccttggc ccgccacgcc ctggagagca gctttgtggg ctggggcctg  
2160  
ccagtcacga gccctcaagc tcttgtggcc atggagaagg aggaaaaaga gagtcccttc  
2220

tccagtgaag aggaagaaga agatgtgcct ttggactcag atgtggaaca ggccttgag  
 2280  
 acctttgccca agacctcagg caccatgaat aactacccaa catggcgctcg gactctgctg  
 2340  
 cgccgtgcga aggaggagga gatgaagagg ttctgcaagg ccagaccat ccaacggcga  
 2400  
 ctaaatgaga ttgaggctgc cttgagggag ctagaggccg agggcgtaa gctggagctg  
 2460  
 gccttgaggc gccagagcag ttccccagaa cagcaaaaga aactatgggt aggacagctg  
 2520  
 ctacagctcg ttgacaagaa aaacagcctg gtggctgagg agggcgagct catgatcacg  
 2580  
 gtgcaggaat tgaatctgga ggagaaacag tggcagctgg accaggagct acgaggctac  
 2640  
 atgaaccggg aagaaacct aaagacagct gctgatcggc aggctgagga ccaggctcctg  
 2700  
 aggaagctgg tggatttggg caaccagaga gatgcctca tccgcttcca ggaggagcgc  
 2760  
 aggctcagcg agctggcctt ggggacaggg gccaggggct agacaggggt gggccgtctg  
 2820  
 cttctgttcc cacaagaaa gcacctcacc ccagcacagt gccacccttg ttcattctggg  
 2880  
 ctgcctggca gagagccttg ctgtttacaa ttaaaatgtt tctgccacaa aaaaaaaaaa  
 2940  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa  
 3000  
 aaaaaaaaaa aaaaaaaaaa a  
 3021

<210> 6192  
 <211> 815  
 <212> PRT  
 <213> Homo sapiens

<400> 6192  
 Met Phe Arg Glu Gly Asp Ala Leu Ser Gly Asp Ile Ser Thr Val Pro  
 1 5 10 15  
 Cys Pro Val Pro Pro Gly Ile Asp Leu Glu Asn Ile Val Tyr Tyr Lys  
 20 25 30  
 Asp Asp Thr His Tyr Phe Val Met Thr Ala Lys Lys Gln Cys Leu Leu  
 35 40 45  
 Arg Leu Gly Val Leu Arg Gln Asp Trp Pro Asp Thr Asn Arg Leu Leu  
 50 55 60  
 Gly Ser Ala Asn Val Val Thr Glu Ala Leu Gln Arg Phe Thr Arg Ala  
 65 70 75 80  
 Ala Ala Asp Phe Ala Thr His Gly Lys Leu Gly Lys Leu Glu Phe Ala  
 85 90 95  
 Gln Asp Ala His Gly Gln Pro Asp Val Ser Ala Phe Asp Phe Thr Ser  
 100 105 110  
 Met Met Arg Ala Glu Ser Ser Ala Arg Val Gln Glu Lys His Gly Ala  
 115 120 125  
 Arg Leu Leu Leu Gly Leu Val Gly Asp Cys Leu Val Glu Pro Phe Trp  
 130 135 140  
 Pro Leu Gly Thr Gly Val Ala Arg Gly Phe Leu Ala Ala Phe Asp Ala

```

145          150          155          160
Ala Trp Met Val Lys Arg Trp Ala Glu Gly Ala Glu Ser Leu Glu Val
165          170          175
Leu Ala Glu Arg Glu Ser Leu Tyr Gln Leu Leu Ser Gln Thr Ser Pro
180          185          190
Glu Asn Met His Arg Asn Val Ala Gln Tyr Gly Leu Asp Pro Ala Thr
195          200          205
Arg Tyr Pro Asn Leu Asn Leu Arg Ala Val Thr Pro Asn Gln Val Arg
210          215          220
Asp Leu Tyr Asp Val Leu Ala Lys Glu Pro Val Gln Arg Asn Asn Asp
225          230          235          240
Lys Thr Asp Thr Gly Met Pro Ala Thr Gly Ser Ala Gly Thr Gln Glu
245          250          255
Glu Leu Leu Arg Trp Cys Gln Glu Gln Thr Ala Gly Tyr Pro Gly Val
260          265          270
His Val Ser Asp Leu Ser Ser Ser Trp Ala Asp Gly Leu Ala Leu Cys
275          280          285
Ala Leu Val Tyr Arg Leu Gln Pro Gly Leu Leu Glu Pro Ser Glu Leu
290          295          300
Gln Gly Leu Gly Ala Leu Glu Ala Thr Ala Trp Ala Leu Lys Val Ala
305          310          315          320
Glu Asn Glu Leu Gly Ile Thr Pro Val Val Ser Ala Gln Ala Val Val
325          330          335
Ala Gly Ser Asp Pro Leu Gly Leu Ile Ala Tyr Leu Ser His Phe His
340          345          350
Ser Ala Phe Lys Ser Met Ala His Ser Pro Gly Pro Val Ser Gln Ala
355          360          365
Ser Pro Gly Thr Ser Ser Ala Val Leu Phe Leu Ser Lys Leu Gln Arg
370          375          380
Thr Leu Gln Arg Ser Arg Ala Lys Asp Leu Leu Gln Glu Asn Ala Glu
385          390          395          400
Asp Ala Gly Gly Lys Lys Leu Arg Leu Glu Met Glu Ala Glu Thr Pro
405          410          415
Ser Thr Glu Val Pro Pro Asp Pro Glu Pro Gly Val Pro Leu Thr Pro
420          425          430
Pro Ser Gln His Gln Glu Ala Gly Ala Gly Asp Leu Cys Ala Leu Cys
435          440          445
Gly Glu His Leu Tyr Val Leu Glu Arg Leu Cys Val Asn Gly His Phe
450          455          460
Phe His Arg Ser Cys Phe Arg Cys His Thr Cys Glu Ala Thr Leu Trp
465          470          475          480
Pro Gly Gly Tyr Glu Gln His Pro Gly Asp Gly His Phe Tyr Cys Leu
485          490          495
Gln His Leu Pro Gln Thr Asp His Lys Ala Glu Gly Ser Asp Arg Gly
500          505          510
Pro Glu Ser Pro Glu Leu Pro Thr Pro Ser Glu Asn Ser Met Pro Pro
515          520          525
Gly Leu Ser Thr Pro Thr Ala Ser Gln Glu Gly Ala Gly Pro Val Pro
530          535          540
Asp Pro Ser Gln Pro Thr Arg Arg Gln Ile Arg Leu Ser Ser Pro Glu
545          550          555          560
Arg Gln Arg Leu Ser Ser Leu Asn Leu Thr Pro Asp Pro Glu Met Glu
565          570          575
Pro Pro Pro Lys Pro Pro Arg Ser Cys Ser Ala Leu Ala Arg His Ala

```

580	585	590
Leu Glu Ser Ser Phe Val Gly Trp Gly Leu Pro Val Gln Ser Pro Gln		
595	600	605
Ala Leu Val Ala Met Glu Lys Glu Glu Lys Glu Ser Pro Phe Ser Ser		
610	615	620
Glu Glu Glu Glu Glu Asp Val Pro Leu Asp Ser Asp Val Glu Gln Ala		
625	630	635
Leu Gln Thr Phe Ala Lys Thr Ser Gly Thr Met Asn Asn Tyr Pro Thr		
645	650	655
Trp Arg Arg Thr Leu Leu Arg Arg Ala Lys Glu Glu Glu Met Lys Arg		
660	665	670
Phe Cys Lys Ala Gln Thr Ile Gln Arg Arg Leu Asn Glu Ile Glu Ala		
675	680	685
Ala Leu Arg Glu Leu Glu Ala Glu Gly Val Lys Leu Glu Leu Ala Leu		
690	695	700
Arg Arg Gln Ser Ser Ser Pro Glu Gln Gln Lys Lys Leu Trp Val Gly		
705	710	715
Gln Leu Leu Gln Leu Val Asp Lys Lys Asn Ser Leu Val Ala Glu Glu		
725	730	735
Ala Glu Leu Met Ile Thr Val Gln Glu Leu Asn Leu Glu Glu Lys Gln		
740	745	750
Trp Gln Leu Asp Gln Glu Leu Arg Gly Tyr Met Asn Arg Glu Glu Asn		
755	760	765
Leu Lys Thr Ala Ala Asp Arg Gln Ala Glu Asp Gln Val Leu Arg Lys		
770	775	780
Leu Val Asp Leu Val Asn Gln Arg Asp Ala Leu Ile Arg Phe Gln Glu		
785	790	795
Glu Arg Arg Leu Ser Glu Leu Ala Leu Gly Thr Gly Ala Gln Gly		
805	810	815

<210> 6193  
 <211> 2893  
 <212> DNA  
 <213> Homo sapiens

<400> 6193  
 nntgtatattt aaaacttggtt ttttttagttt cattctgaga aattacattg agggtagagc  
 60  
 ctgttcatta ccttatccat gcatttttct gcttatttaa attattttac ttcaccaagc  
 120  
 cattcatttt tttagaacat ccttcaaaga gttcatgcat cttactgagg acacctgacc  
 180  
 ttttgaagct tcataattca catctagatg tcaccggtct tttccatgtt aacagtcttg  
 240  
 accatgtttt attatatatg ccttcggcgc cgagccagga cagctacaag aggagaaatg  
 300  
 atgaacaccc atagagctat agaatcaaac agccagactt cccctctcaa tgcagaggta  
 360  
 gtccagtatg ccaaagaagt agtggatttc agttccatt atggaagtga gaatagtatg  
 420  
 tcctatacta tgtggaattt ggctgggtgta ccaaatgtat tcccaagttc tggtgacttt  
 480  
 actcagacag ctgtgtttcg aacttatggg acatgggtggg atcagtgtcc tagtgcttcc  
 540

ttgccattca agaggacgcc acctaatttt cagagccagg actatgtgga acttactttt  
600  
gaacaacagg tgtatcctac agctgtacat gttctagaaa cctatcatcc cgagcagtc  
660  
attagaattc tcgcttggtc tgcaaatcct tattcccca atccaccagc tgaagtaaga  
720  
tgggagattc tttggtcaga gagacctacg aagggtgaatg cttcccaagc tcgccagttt  
780  
aaaccttgta ttaagcagat aaatttcccc acaaatctta tacgactgga agtaaatagt  
840  
tctcttctgg aatattacac tgaattagat gcagttgtgc tacatggtgt gaaggacaag  
900  
ccagtgcctt ctctcaagac ttcacttatt gacatgaatg atatagaaga tgatgcctat  
960  
gcagaaaagg atggttggtg aatggacagt cttaacaaaa agtttagcag tgctgtcctc  
1020  
ggggaagggc caaataatgg gtattttgat aaactacctt atgagcttat tcagctgatt  
1080  
ctgaatcatc ttacactacc agacctgtgt agattagcac agacttgcaa actactgagc  
1140  
cagcattgct gtgatcctct gcaatacatc cacctcaatc tgcaaccata ctgggcaaaa  
1200  
ctagatgaca cttctctgga atttctacag tctcgctgca ctctgtcca gtggcttaat  
1260  
ttatcttggg ctggcaatag aggcctcatc tctgttgtag gatttagcag gtttctgaag  
1320  
gtttgtggat ccgaattagt acgccttgaa ttgtcttgca gccactttct taatgaaact  
1380  
tgcttagaag ttatttttga gatgtgtcca aatctacagg ccttaaatct ctctcctgt  
1440  
gataagctac cacctcaagc tttcaaccac attgccaaat tatgcagcct taaacgactt  
1500  
gtctctctac gaacaaaagt agagcaaaca gactgctca gcattttgaa cttctgttca  
1560  
gagcttcagc acctcagctt aggcagttgt gtcattgatt aagactatga tgtgatagct  
1620  
agcatgatag gagccaagtg taaaaaactc cggaccctgg atctgtggag atgtaagaat  
1680  
attactgaga atggaatagc agaactggct tctgggtgtc cactactgga ggagcttgac  
1740  
cttggctggt gcccaactct gcagagcagc accgggtgct tcaccagact ggcacaccag  
1800  
ctcccaaact tgcaaaaact ctttcttaca gctaatagat ctgtgtgtga cacagacatt  
1860  
gatgaattgg catgtaattg taccagggtta cagcagctgg acatattagg aacaagaatg  
1920  
gtaagtccgg catccttaag aaaactcctg gaatcttgta aagatcttct tttacttgat  
1980  
gtgtccttct gttcgcatg tgataacaga gctgtgctag aactgaatgc aagctttcca  
2040  
aaagtgttca taaaaaagag ctttactcag tgacttaata tatgttctgt attaaaatta  
2100  
atgtgccttg ttgggggtta attttgggat tgggttttgg ttttgttttt agttgtttta  
2160

atggtaagaa ttaagacatt tgtagatTTT aaagaaaaat atgaaattgt ccattaaatc  
 2220  
 aagtaaaaaat gtgcacaaat gttttcataa aatactgcaa gcacttctct tcaagaatat  
 2280  
 gagtggatat tatttttacc ttatgttaat cagtgatatg ctttagtcaa taatatgatt  
 2340  
 gataaaagaa taacatggaa tcatgctaac ttattttcaa aggaacactg agcaataaag  
 2400  
 tatcgtggca tttatgcaaa aaaaaaagtt aattttttac accttcattg aaggatgtct  
 2460  
 tattaagcct gtgacctggc aagtgttttg tttggtatgt acaaaatggc cagagctagt  
 2520  
 tggagaatga gacatgcttt tccagctggt tggttatttc tctggattaa ctgttcaact  
 2580  
 ggaaaaatTTT tagtttttct agccaggtgt ggtggcacac acctgtatgc ctacgcacac  
 2640  
 gggaggtgga ggcaggagga ttacttgaga tgggattttg agactctagt gtacttatga  
 2700  
 ttgcacctgt gagcagccac tgcactccaa cctgggcaat atagcgagtc cttttctctt  
 2760  
 aaaaaaaatt gtagtgtttc cacttttctt ctgatatttt tgtctatttc actactggat  
 2820  
 aatgccaata taaaaatttg ggtataatca agaataagag gtaaactact aaataaaaaa  
 2880  
 agctttccaa ctg  
 2893

<210> 6194  
 <211> 621  
 <212> PRT  
 <213> Homo sapiens

<400> 6194  
 Met Ser Pro Val Phe Pro Met Leu Thr Val Leu Thr Met Phe Tyr Tyr  
 1 5 10 15  
 Ile Cys Leu Arg Arg Ala Arg Thr Ala Thr Arg Gly Glu Met Met  
 20 25 30  
 Asn Thr His Arg Ala Ile Glu Ser Asn Ser Gln Thr Ser Pro Leu Asn  
 35 40 45  
 Ala Glu Val Val Gln Tyr Ala Lys Glu Val Val Asp Phe Ser Ser His  
 50 55 60  
 Tyr Gly Ser Glu Asn Ser Met Ser Tyr Thr Met Trp Asn Leu Ala Gly  
 65 70 75 80  
 Val Pro Asn Val Phe Pro Ser Ser Gly Asp Phe Thr Gln Thr Ala Val  
 85 90 95  
 Phe Arg Thr Tyr Gly Thr Trp Trp Asp Gln Cys Pro Ser Ala Ser Leu  
 100 105 110  
 Pro Phe Lys Arg Thr Pro Pro Asn Phe Gln Ser Gln Asp Tyr Val Glu  
 115 120 125  
 Leu Thr Phe Glu Gln Gln Val Tyr Pro Thr Ala Val His Val Leu Glu  
 130 135 140  
 Thr Tyr His Pro Gly Ala Val Ile Arg Ile Leu Ala Cys Ser Ala Asn  
 145 150 155 160  
 Pro Tyr Ser Pro Asn Pro Pro Ala Glu Val Arg Trp Glu Ile Leu Trp

	165		170		175
Ser Glu Arg Pro Thr Lys Val Asn Ala Ser Gln Ala Arg Gln Phe Lys					
180		185		190	
Pro Cys Ile Lys Gln Ile Asn Phe Pro Thr Asn Leu Ile Arg Leu Glu					
195		200		205	
Val Asn Ser Ser Leu Leu Glu Tyr Tyr Thr Glu Leu Asp Ala Val Val					
210		215		220	
Leu His Gly Val Lys Asp Lys Pro Val Leu Ser Leu Lys Thr Ser Leu					
225		230		235	
Ile Asp Met Asn Asp Ile Glu Asp Asp Ala Tyr Ala Glu Lys Asp Gly					
245		250		255	
Cys Gly Met Asp Ser Leu Asn Lys Lys Phe Ser Ser Ala Val Leu Gly					
260		265		270	
Glu Gly Pro Asn Asn Gly Tyr Phe Asp Lys Leu Pro Tyr Glu Leu Ile					
275		280		285	
Gln Leu Ile Leu Asn His Leu Thr Leu Pro Asp Leu Cys Arg Leu Ala					
290		295		300	
Gln Thr Cys Lys Leu Leu Ser Gln His Cys Cys Asp Pro Leu Gln Tyr					
305		310		315	
Ile His Leu Asn Leu Gln Pro Tyr Trp Ala Lys Leu Asp Asp Thr Ser					
325		330		335	
Leu Glu Phe Leu Gln Ser Arg Cys Thr Leu Val Gln Trp Leu Asn Leu					
340		345		350	
Ser Trp Thr Gly Asn Arg Gly Phe Ile Ser Val Ala Gly Phe Ser Arg					
355		360		365	
Phe Leu Lys Val Cys Gly Ser Glu Leu Val Arg Leu Glu Leu Ser Cys					
370		375		380	
Ser His Phe Leu Asn Glu Thr Cys Leu Glu Val Ile Ser Glu Met Cys					
385		390		395	
Pro Asn Leu Gln Ala Leu Asn Leu Ser Ser Cys Asp Lys Leu Pro Pro					
405		410		415	
Gln Ala Phe Asn His Ile Ala Lys Leu Cys Ser Leu Lys Arg Leu Val					
420		425		430	
Leu Tyr Arg Thr Lys Val Glu Gln Thr Ala Leu Leu Ser Ile Leu Asn					
435		440		445	
Phe Cys Ser Glu Leu Gln His Leu Ser Leu Gly Ser Cys Val Met Ile					
450		455		460	
Glu Asp Tyr Asp Val Ile Ala Ser Met Ile Gly Ala Lys Cys Lys Lys					
465		470		475	
Leu Arg Thr Leu Asp Leu Trp Arg Cys Lys Asn Ile Thr Glu Asn Gly					
485		490		495	
Ile Ala Glu Leu Ala Ser Gly Cys Pro Leu Leu Glu Glu Leu Asp Leu					
500		505		510	
Gly Trp Cys Pro Thr Leu Gln Ser Ser Thr Gly Cys Phe Thr Arg Leu					
515		520		525	
Ala His Gln Leu Pro Asn Leu Gln Lys Leu Phe Leu Thr Ala Asn Arg					
530		535		540	
Ser Val Cys Asp Thr Asp Ile Asp Glu Leu Ala Cys Asn Cys Thr Arg					
545		550		555	
Leu Gln Gln Leu Asp Ile Leu Gly Thr Arg Met Val Ser Pro Ala Ser					
565		570		575	
Leu Arg Lys Leu Leu Glu Ser Cys Lys Asp Leu Ser Leu Leu Asp Val					
580		585		590	
Ser Phe Cys Ser Gln Ile Asp Asn Arg Ala Val Leu Glu Leu Asn Ala					



```

595                               600                               605
Ser Phe Pro Lys Val Phe Ile Lys Lys Ser Phe Thr Gln
610                               615                               620

<210> 6195
<211> 518
<212> DNA
<213> Homo sapiens

<400> 6195
ggatcccaag agatattttc tgagctgaac tatgtggtca cagaaggcca gctcccgaca
60
gcacgggact atgagggttc gccctgttct gtgtagcccc agctggttcc ctggggaaaa
120
gtttccactt ctgctgtcaa gaaccacaag ggtaacgccc catccctaca aataccaagt
180
acatccaaat tcttcactgg cacagaaatg gtgttacatc cactgggaac aaacctgcac
240
ccccacccca aggcattgtga caacagggac tgctaattgag ctttgtccgg gtaactcatt
300
cacgccatca tcttgccttt tccatagtca cttattaagc acaaactatg ccaaaaacta
360
tgtccagcac cgcacaggat ggtaaaatgc cctgaggggc ccccccatc tgactcccg
420
tgagcggagt gggcagccct gcctgggagc tccagcctcc tgcacccacg tgcccccttg
480
ttatctctgc ctggatgcct cacaggcatc tcacgcgt
518

<210> 6196
<211> 117
<212> PRT
<213> Homo sapiens

<400> 6196
Met Trp Ser Gln Lys Ala Ser Ser Gln Gln His Gly Thr Met Arg Val
1 5 10 15
Arg Pro Val Leu Cys Ser Pro Ser Trp Phe Pro Gly Glu Lys Phe Pro
20 25 30
Leu Leu Leu Ser Arg Thr Thr Arg Val Lys Pro His Pro Tyr Lys Tyr
35 40 45
Gln Val His Pro Asn Ser Ser Leu Ala Gln Lys Trp Cys Tyr Ile His
50 55 60
Trp Glu Gln Thr Cys Ile Pro Thr Pro Arg His Val Thr Thr Gly Thr
65 70 75 80
Ala Asn Glu Leu Cys Pro Gly Asn Ser Phe Thr Pro Ser Ser Cys Ser
85 90 95
Phe His Ser His Leu Leu Ser Thr Asn Tyr Ala Lys Asn Tyr Val Gln
100 105 110
His Arg Thr Gly Trp
115

<210> 6197
<211> 2841

```

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6197

nagcattctt ccatctgtag atgtttcagc tgctgtacaa gggagtccca tttcaggtgt  
60  
ggggctgggc atggctactc ctgctggatg tctggaaggt gaaaaccaag gacctagggg  
120  
aataccaggt acagcctttc cccgctcatc cagagcagga caaacaggcc aggtgggtatc  
180  
aggagcccag gtctccagct ggagggaatg tcaaccctgc agtgggagca ggggcccatc  
240  
acgcatccta ggcacagatg ctaatgcagg cactgcaggt aagctgggct tggtatcctt  
300  
ccctggcttc agaaagaagc caacaaggag cgttttgtag aatgaaacct ttgtttccag  
360  
aagcactgct gactgtaagt ggttgccgtt tgtggcagtg agcattttgt ccattctgag  
420  
gttggattgg tttctccttt tggccttgcc ctgccctaca gaccataaag gagaacagca  
480  
agaagccccc agcaaacatc cacagatggc cctggacatc agccacattc tgaggaacat  
540  
gtcatgttct gggaggggcta aggcatacaag taaggcctgt ggggctggag gatcacaggg  
600  
cagggtggggc aatccagagc catgggggct tcccatggga attgggaggt cccaaggcag  
660  
agtccagaggt tccacaggag gagtccagga gtcaccaagg gctctcctgg ccaggaggc  
720  
agtcaacacc atggactgaa caccactggg gctccaacct ttgggccagg ctggggcatg  
780  
tggggccagg aggcagctca gagtgggagg cagagagaga agtgtgttca gagggcaccc  
840  
atatctggat gtaatgtggt cctgagactc tggctgggaa gtgcttccag ggtttcata  
900  
gtgttatgca gctacttctt ctccccaacc ttaccgtgca ggaatcccag tgaatatgtt  
960  
gccaccatct tggagctcag tgcctcata gtgtaacagc accagcagat ctgcctgtgc  
1020  
acagacttcc tgtactacct cactcctgag gggagatgct tctgcagggc ctgcgacctg  
1080  
gtgcacaact ttnnagacac catcatcctg gagcggcact gcacctcac tagccagggt  
1140  
gttgatgact tcctcaatgc caaggccacg ttcaagattt tcgacttcag tgatgcgttt  
1200  
gtgctgagca aggtgggctt ctccgggatt ttagttcagg aggtagaatg cagcttgaga  
1260  
tcaagtgtct gatcaataa cttgaacttg atctggagag ctctggggag ccatagaagt  
1320  
tgttgataa aggagggaca gtcgtatatg ttttagagat gactgtggaa ggctgcctgg  
1380  
aaggagtgaa caagagccag gagaccaggg agggagcttg tggggcagggt ctggagatga  
1440  
caagggaggg atcctgcttt gatgaaaggc cttcagggaa tgtctcagggt tacactcagg  
1500

tgctcctcaga gctagtgtgt tcaggggtct tgccctccagg atgaaaatga gaaggagtgt  
1560  
tcagacaaga acatataaat gaaggctggc atcttcgtga gtgccaatcg ttgtcctggc  
1620  
gtggactact gtgggaatag gggctctctcc atccagggac atggtggatg gaccctacat  
1680  
cactccattc tgcccttctc ttccctccca ttctgagggc ctcaagtcaa gggcgctgtc  
1740  
caacctctgg tgctgaagca gccgagagac ccaagcctgc cactcaggat atgacagcac  
1800  
agccagtggc ctctactgga tcctgtacaa cctcagaaga cacctagaca ctgggagtgc  
1860  
tgccaccacg tgggtcaaga gttctgaggg accgcaattc tgaagacatt gaatgctgct  
1920  
tcctgtctcc tccatggacc tgcacagaat tgtcccatgt ttctgtttgt ttgggcacca  
1980  
ctgaggaagg aagcatgaag gacgcagagg tcaggccatt ctattgccct cctgctgctg  
2040  
ggctctttaa cctgagatgg cttcaggggc tggctcttct ccatggcccc ctccacatat  
2100  
ctcagccatt ttgcaaaccc tggtcagaat gaaacattcc ttgggaaactc gggccatgag  
2160  
aagcctcctt cctgaccacc tgactgcgga aacatcctta tcgcatctc ccgggcgaag  
2220  
gcccacagc ctgactgcag gaacatcctt gccatatect gccgggcagc aagctctacc  
2280  
gcccagaccc ctctctccca gtcccatgat cgcgccagcc tgtgagcggc agttggtgat  
2340  
ggcactaagc tgatttctc ctctgcaggg ttttgctagt aataaagggtg ttgctgttga  
2400  
agccgtcaac tgtctttcta tgtctttctt taacccttgc ctgctcttca aaatctaaca  
2460  
atagctctac ctctccattt taccaaggag gatatgagac tcaaggagag caagagactt  
2520  
accagaatt acacagccag tgagtcacag aacttgaact tgagctcagt tcagctgaat  
2580  
ccagaactca tgtcttctg agagtccagg gaaggaaagg tggaaactgca gccagtgggt  
2640  
cccacaggct tgtcctagga gaccacatgc agactcctgg gaattgtgtc ctcttgggca  
2700  
caaaagaaga actgttcacc tgtgctgcat cagctaagtg tccccattgt cccaaattgt  
2760  
tatattttt caaagtttca ttttagtaac tagatttctc acagctcagt gttgaaaaca  
2820  
aagcacagag gcatatagaa a  
2841

&lt;210&gt; 6198

&lt;211&gt; 124

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6198

Met Gly Ala Ser His Gly Asn Trp Glu Val Pro Arg Gln Ser Gln Arg

1	5	10	15
Phe His Arg Arg Ser Gln Arg Val Thr Lys Gly Ser Pro Gly Pro Gly			
	20	25	30
Ser Ser Gln His His Gly Leu Asn Thr His Trp Ala Pro Thr Leu Gly			
	35	40	45
Pro Gly Trp Gly Met Trp Gly Gln Glu Ala Ala Gln Ser Gly Arg Gln			
	50	55	60
Arg Glu Lys Cys Val Gln Arg Ala Pro Ile Ser Gly Cys Asn Val Val			
	65	70	75
Leu Arg Leu Trp Leu Gly Ser Ala Ser Arg Val Ser Tyr Val Leu Cys			
	85	90	95
Ser Tyr Phe Leu Ser Pro Thr Leu Pro Cys Arg Asn Pro Ser Glu Tyr			
	100	105	110
Val Ala Thr Ile Leu Glu Leu Ser Ala Leu Ile Val			
	115	120	

<210> 6199  
 <211> 1777  
 <212> DNA  
 <213> Homo sapiens

<400> 6199  
 ctgcttttcc cagcagtatt agtgtcccc aggcaggga ctttttccac attacatcac  
 60  
 tgccccatcc caccttaca cactctggcc cctctgcttg gtcccccttt tccccaggca  
 120  
 ggaggcaatc ccaggggcct gcctgataga ggcatttctt gtccctgtct cctcctgcat  
 180  
 ctcttttatt ctgcactgcc accctctatt cccatttctg tgttggaact tgaaggcccc  
 240  
 aagcccagcc aaagcactga gttccccctt aagacacctc cacaccctcc ccacaagcaa  
 300  
 agcacaatt ttgggggtcca tgtagcatgg gccacgtagg aggcctctga cttgccaggg  
 360  
 gcccagcctc agcataccca ccgaggcagc tgccagcctg ggctgagggt gggcatgagg  
 420  
 caggagttag cacttggaac tagggatgtg aggttttctg tgccccagt ttgtgggaag  
 480  
 gtgggcacta ctgctgggcc cacagacaca gccagctggc aaaaggagg tctagcccag  
 540  
 cagagagatg aggacatttt gcttctcctt catgcccaca gcatgagctg agcttctgct  
 600  
 ttgctggaaa tgaaataaac ttggtatgaa ttgtgccaag gcctccccag ttgtcaccct  
 660  
 gcctcttggt gccctccctg tccttgcccc ccacccaca cccatgcccc tgtttcctta  
 720  
 cagatattga tattgttcta atgtgtaata gaaccagccg agtccccctt tatcagaagg  
 780  
 gtctgaaaag cagcagcaca gagtaggtga acacaggcct gcaagtgcga ccacctcaga  
 840  
 cccagtacgt gtgcccacag tggacacact cacacctcca acaccccac gcgcaggcat  
 900  
 gtgtacacgc atgtacacac gcatgcatgc acagccagat ggccactcag cacagatgtg  
 960

gcagagggaa tggctctgac ctgctgaaag ccattaagga gaaacgaatt tcccagtgcc  
 1020  
 cgggctgcaa gagagcctta taggggccct gtttcctggg catgcgcttc ctctgccagc  
 1080  
 caacccccac ttgcccaagt cactggtgca ataacttttc tgccttcctc agagcagaga  
 1140  
 aattgggaat tgtgttaggt ggggtggggc agctctgctg agccaagcag acacggatgt  
 1200  
 cccctcttct gggaggaggg tagtgctccc aggcctcagg agtccagaca gagaccccca  
 1260  
 aagcctgact gccaacagaa accctctcct agtgaggggc aggtgggtgt gcccnncagg  
 1320  
 tccccacacc cacagggagg cttcacacac tgcccagtag cggggatgcc agggaggcagg  
 1380  
 cccctctgct gctgccactg ctgccaacac tgcccagctt gtgaggccag gaggagcccc  
 1440  
 tgtcccactc ggtgctgctg ctcttctgac ccctgctgtg aggaatggga ttcttggtcg  
 1500  
 aaaaaattgg ttttcctttt ttgtataaat gaaaagaatc caggagaagc tgccaccctc  
 1560  
 ccctcccagc gtgatgcgct accttgcttc ggcgtcttgt cgccctttcc gcctttggtc  
 1620  
 caggggacagc ccagcagatc ctcctgggtc tgacctgggg ggtgtttgca tcacccctt  
 1680  
 ttacttgat taaaaaaaa tgatgggttg aaaatgtact gaggattaaa aatgtacttt  
 1740  
 tttataaata aagtgtttaa aacaaaaaaaa aaaaaaa  
 1777

&lt;210&gt; 6200

&lt;211&gt; 164

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6200

Val Gly Val Gly Ser Ser Ala Glu Pro Ser Arg His Gly Cys Pro Leu  
 1 5 10 15  
 Phe Trp Glu Glu Gly Ser Ala Pro Arg Pro Gln Glu Ser Arg Gln Arg  
 20 25 30  
 Pro Pro Lys Pro Asp Cys Gln Gln Lys Pro Ser Pro Ser Glu Gly Gln  
 35 40 45  
 Val Gly Val Pro Xaa Arg Ser Pro His Pro Gln Gly Gly Phe Thr His  
 50 55 60  
 Cys Pro Val Pro Gly Met Pro Gly Gly Arg Pro Leu Cys Cys Cys His  
 65 70 75 80  
 Cys Cys Gln His Cys Pro Ala Cys Glu Ala Arg Arg Ser Pro Cys Pro  
 85 90 95  
 Thr Arg Cys Cys Ser Ser Asp Pro Cys Cys Glu Glu Trp Asp Ser  
 100 105 110  
 Trp Ser Lys Lys Leu Val Phe Leu Phe Cys Ile Asn Glu Lys Asn Pro  
 115 120 125  
 Gly Glu Ala Ala Thr Leu Pro Ser Gln Arg Asp Ala Leu Pro Cys Phe  
 130 135 140  
 Gly Val Leu Ser Pro Phe Pro Pro Leu Val Gln Gly Gln Pro Ser Arg

145                      150                      155                      160  
 Ser Ser Trp Phe

<210> 6201  
 <211> 604  
 <212> DNA  
 <213> Homo sapiens

<400> 6201  
 acgcgtgggc atgtgcacgt gtgtgcctgt gcatgcgtga atatgcgtgt gtgtgcgtgc  
 60  
 tgtgctgagg acagcgtgag ttttcacaga agcaggtaaa aagttccaca ggaacagaga  
 120  
 ccaggacaag accagccctg atgggagaag ccagaggacc cagaggaaact tccaggaggc  
 180  
 ccttagctcc ctacagacaga atgcgggac gcaatgccca gcaaaggcca attcaaggac  
 240  
 agtggacgct ggggagagga gcagagtggg cagctctcag gagggcagga ctgcgaggct  
 300  
 gcagggagga gttcgggtgg aagggacagc ctacagagcct aagctgcgcc tcctgggaaa  
 360  
 ggggtatgac tggcaggcac acaaattgtct ctcaaggaag gtgggcctgg ggccacagag  
 420  
 ctcccagagg agggagtgga gaggagagac ccgcagagga gagaccaggc agggctggcg  
 480  
 atcacgcagg tgcacagggt gaacgtcagg actgaaacgg aagacaatgt ccccatgcaa  
 540  
 gactggctga aacgaactca cacagaattt ttaagaggct cctgtgttgg gtgaaaaccg  
 600  
 gccg  
 604

<210> 6202  
 <211> 124  
 <212> PRT  
 <213> Homo sapiens

<400> 6202  
 Met Gly Glu Ala Arg Gly Pro Arg Gly Thr Ser Arg Arg Pro Leu Ala  
 1                      5                      10                      15  
 Pro Ser Asp Arg Met Arg Asp Arg Asn Ala Gln Gln Arg Ala Ile Gln  
 20                      25                      30  
 Gly Gln Trp Thr Leu Gly Arg Gly Ala Glu Trp Ala Ala Leu Arg Arg  
 35                      40                      45  
 Ala Gly Leu Arg Gly Cys Arg Glu Glu Phe Gly Gly Lys Gly Gln Pro  
 50                      55                      60  
 Gln Ser Leu Ser Cys Ala Ser Trp Glu Arg Gly Met Thr Gly Arg His  
 65                      70                      75                      80  
 Thr Asn Val Ser Gln Gly Arg Trp Ala Trp Gly His Arg Ala Pro Arg  
 85                      90                      95  
 Gly Gly Ser Gly Glu Gly Glu Pro Ala Glu Glu Arg Pro Gly Arg Ala  
 100                      105                      110  
 Gly Asp His Ala Gly Ala Gln Gly Glu Arg Gln Asp

115

120

<210> 6203  
<211> 3462  
<212> DNA  
<213> Homo sapiens

<400> 6203  
nnaccggttg cggccgcaggg gtctgggcag ggctgggcag tgctgccgga gcaaaagcgg  
60  
tagcggggagc cgggccggag ctgggtctgg agacgccgtg gcagcctgaa cggagtggtg  
120  
gacggattgg gaggtttgtc tacagatttt gagcgttcga agttgacccc tgactaagta  
180  
tactttgctg ctccctcagc ctttgaaaa atgtctgtca catatgatga ttccgttgga  
240  
gtagaagtgt ccagcgacag cttctgggag gtcgggaact acaagcggac tgtgaagcgg  
300  
atcgacgatg gccaccgcct gtgcagcgac ctcatgaact gcctgcatga gcgggcgcgc  
360  
atcgagaagg cgtatgcgca gcagctcact gagtggggccc ggcgctggag gcagctcgtg  
420  
gagaaagggc ccaggtacgg gaccgtggag aaggcctgga tggccttcac gtccgaggca  
480  
gagaggggtga gcgagctgca cctcgaggtg aaggcctcac tgatgaacga tgacttcgag  
540  
aagatcaaga actggcagaa ggaagccttt cacaagcaga tgatgggcgg cttcaaggag  
600  
accaaggaag ctgaggacgg ctttcggaag gcacagaagc cctgggccaa gaagctgaaa  
660  
gaggtagaag cagcaagaa agcccacat gcagcgtgca aagaggagaa gctggctatc  
720  
tcacgagaag ccaacagcaa ggcagaccca tccctcaacc ctgaacagct caagaaattg  
780  
caagacaaaa tagaaaagtg caagcaagat gttcttaaga ccaagagaa gtatgagaag  
840  
tccctgaagg aactcgacca gggcacaccc cagtacatgg agaacatgga gcaggtgttt  
900  
gagcagtgcc agcagttcga ggagaaacgc cttcgcttct tccgggaggt tctgctggag  
960  
gttcagaagc acctagacct gtccaatgtg gctggctaca aagccattta ccatgacctg  
1020  
gagcagagca tcagagcagc tgatgcagtg gaggacctga ggtggttccg agccaatcac  
1080  
gggccgggca tggccatgaa ctggccgcag tttagaggag ggtccgcaga cctgaatcga  
1140  
accctcagcc ggagagagaa gaagaaggcc actgacggcg tcaccctgac gggcatcaac  
1200  
cagacaggcg accagtctct gccgagtaag cccagcagca cccttaatgt cccgagcaac  
1260  
cccgcccagt ctgcgcagtc acagtccagc tacaaccctc tcgaggatga ggacgacacg  
1320  
ggcagcaccg tcagtgagaa ggacgacact aaggccaaaa atgtgagcag ctacgagaag  
1380

5386

accagagct atcccaccga ctggtcagac gatgagtcta acaaccctt ctctccacg  
1440  
gatgccaatg gggactcgaa tccattcgac gacgacgcca cctcggggac ggaagtgcga  
1500  
gtccggggccc tgtatgacta tgaggggcag gagcatgatg agctgagctt caaggctggg  
1560  
gatgagctga ccaagatgga ggacgaggat gagcagggct ggtgcaaggg acgcttggac  
1620  
aacgggcaag ttggcctata cccggcaaat tatgtggagg cgatccagtg atgagtcggg  
1680  
gacaggccag cgggggggacg gaggcggcgg gcccaggagc ctccagccagc cacgtgggca  
1740  
tccactcctt ttcctgcaag agatgatggg tccattgctc ttggcttcat ggtgttcctg  
1800  
gaaggcagat gagctgggca ttctgcctgg gactcggcac ctttccgagt gcagctggag  
1860  
ggatctgagc gcagggaagac gcagaacaac agaaatagcc gccctcccc gccactgtg  
1920  
cctgttgccc tatcatagat ctctatgttc ttgactttgt ctctccttcc cgagtcaatg  
1980  
gtgggttaca ctgatcttgt tccactgatt actctctctg acgagtcctt cacctgcaac  
2040  
ttaaataaac aagcttacat cccattttga gtgaagattt tgaggttttt aatttaaagg  
2100  
ctgtgtacag ttatactttt ttatacacct gttcatttct acttaaatga tggcacagat  
2160  
tgatgcgcac cagtcttgag gaaacgatct ccctattccc ttaccctgtt actcagccac  
2220  
gccgtgtgta ggcttagcct cagggtggcag atgtttgagg aaaggaatta tgccaggaag  
2280  
gtggggaccgg gttatgggct gggttctatt ggggaatgctc tttgtgcttt tgggcatctg  
2340  
aatggaagct ttacatagaa ccttaggtag aactccccc aatcgccata tttaaaatt  
2400  
attttcactc tattcttgct taaaactgta ctcttttgca aattaacaat tttatcactg  
2460  
attcagagtt aaaaagaaga ctaacttttc aagcaaatgc atctgtaaag atgctttaga  
2520  
ttagactgtc atgtctcagt gtctatctgt atatattatt tgatattcag agaactctaa  
2580  
gcactcgtct actgttttaa tgagatttaa cagcttttaa cagtgaagtt cgtttgtaaa  
2640  
ctgcttgaag tctgtggcat tcaggcacac atctggctgg ccggctgggt ctctcccgg  
2700  
gtcagtgagg cctggggcct ctctgacgtg gtgcctgctg gagggaggct cgtcgtcacc  
2760  
agctgactgc tggctccggc tctgaccggc ctttgctcctg gctccgtagc agaactgt  
2820  
aaaagtggcc gcgtctttgc agtagttgca gatttcagtc gtcgtgttac ttgtgcacaa  
2880  
acagaagctg ggtcttaccg gcagcacgag tgtctcgggc tgcccggagt cggccgggag  
2940  
caggtgctgc agccagagtt acgcgggggc cagcggggcc ggcgggggtg gggggaacgt  
3000



gggggaacct gtgtttcacg tgactcagca gtgccgcgcg ccgtcaccag ctatgcattc  
 3060  
 actccgtttc cagtgcagcag atgtcttgct tggaaagtgg acctgtgtct gtgtctgtcc  
 3120  
 tgagaactta ccagcagaaa tcctcatttc tgtgctacgg atttaccaaa aattgtcaag  
 3180  
 tctttttcag tttaacagtt cctttacatg tgtagtattt gagggaaaaa atcaataaac  
 3240  
 agttgatctc gtgcataatg aagtccttc gccatcatct gtcttcacgc ccacttcact  
 3300  
 tggcgggggt ggcctccctg gggcttacta gctttggagc tgggcaagat ccagggcaca  
 3360  
 ggacccctgc ccaaaaggcc acggccctact gccctgccca aactggaggt tggggatttg  
 3420  
 aggcacctga gcccttggg gttcccttct ccccgagacc tg  
 3462

<210> 6204

<211> 486

<212> PRT

<213> Homo sapiens

<400> 6204

Met	Ser	Val	Thr	Tyr	Asp	Asp	Ser	Val	Gly	Val	Glu	Val	Ser	Ser	Asp
1				5					10					15	
Ser	Phe	Trp	Glu	Val	Gly	Asn	Tyr	Lys	Arg	Thr	Val	Lys	Arg	Ile	Asp
			20					25					30		
Asp	Gly	His	Arg	Leu	Cys	Ser	Asp	Leu	Met	Asn	Cys	Leu	His	Glu	Arg
			35				40					45			
Ala	Arg	Ile	Glu	Lys	Ala	Tyr	Ala	Gln	Gln	Leu	Thr	Glu	Trp	Ala	Arg
			50			55					60				
Arg	Trp	Arg	Gln	Leu	Val	Glu	Lys	Gly	Pro	Gln	Tyr	Gly	Thr	Val	Glu
65					70					75					80
Lys	Ala	Trp	Met	Ala	Phe	Met	Ser	Glu	Ala	Glu	Arg	Val	Ser	Glu	Leu
				85					90					95	
His	Leu	Glu	Val	Lys	Ala	Ser	Leu	Met	Asn	Asp	Asp	Phe	Glu	Lys	Ile
			100					105					110		
Lys	Asn	Trp	Gln	Lys	Glu	Ala	Phe	His	Lys	Gln	Met	Met	Gly	Gly	Phe
			115				120						125		
Lys	Glu	Thr	Lys	Glu	Ala	Glu	Asp	Gly	Phe	Arg	Lys	Ala	Gln	Lys	Pro
			130			135						140			
Trp	Ala	Lys	Lys	Leu	Lys	Glu	Val	Glu	Ala	Ala	Lys	Lys	Ala	His	His
145				150						155					160
Ala	Ala	Cys	Lys	Glu	Glu	Lys	Leu	Ala	Ile	Ser	Arg	Glu	Ala	Asn	Ser
			165					170						175	
Lys	Ala	Asp	Pro	Ser	Leu	Asn	Pro	Glu	Gln	Leu	Lys	Lys	Leu	Gln	Asp
			180					185					190		
Lys	Ile	Glu	Lys	Cys	Lys	Gln	Asp	Val	Leu	Lys	Thr	Lys	Glu	Lys	Tyr
			195				200						205		
Glu	Lys	Ser	Leu	Lys	Glu	Leu	Asp	Gln	Gly	Thr	Pro	Gln	Tyr	Met	Glu
			210			215					220				
Asn	Met	Glu	Gln	Val	Phe	Glu	Gln	Cys	Gln	Gln	Phe	Glu	Glu	Lys	Arg
225				230						235					240
Leu	Arg	Phe	Phe	Arg	Glu	Val	Leu	Leu	Glu	Val	Gln	Lys	His	Leu	Asp

	245		250		255
Leu Ser Asn Val Ala Gly Tyr Lys Ala Ile Tyr His Asp Leu Glu Gln					
	260		265		270
Ser Ile Arg Ala Ala Asp Ala Val Glu Asp Leu Arg Trp Phe Arg Ala					
	275		280		285
Asn His Gly Pro Gly Met Ala Met Asn Trp Pro Gln Phe Glu Glu Trp					
	290		295		300
Ser Ala Asp Leu Asn Arg Thr Leu Ser Arg Arg Glu Lys Lys Lys Ala					
	305		310		315
Thr Asp Gly Val Thr Leu Thr Gly Ile Asn Gln Thr Gly Asp Gln Ser					
	325		330		335
Leu Pro Ser Lys Pro Ser Ser Thr Leu Asn Val Pro Ser Asn Pro Ala					
	340		345		350
Gln Ser Ala Gln Ser Gln Ser Ser Tyr Asn Pro Phe Glu Asp Glu Asp					
	355		360		365
Asp Thr Gly Ser Thr Val Ser Glu Lys Asp Asp Thr Lys Ala Lys Asn					
	370		375		380
Val Ser Ser Tyr Glu Lys Thr Gln Ser Tyr Pro Thr Asp Trp Ser Asp					
	385		390		395
Asp Glu Ser Asn Asn Pro Phe Ser Ser Thr Asp Ala Asn Gly Asp Ser					
	405		410		415
Asn Pro Phe Asp Asp Asp Ala Thr Ser Gly Thr Glu Val Arg Val Arg					
	420		425		430
Ala Leu Tyr Asp Tyr Glu Gly Gln Glu His Asp Glu Leu Ser Phe Lys					
	435		440		445
Ala Gly Asp Glu Leu Thr Lys Met Glu Asp Glu Asp Glu Gln Gly Trp					
	450		455		460
Cys Lys Gly Arg Leu Asp Asn Gly Gln Val Gly Leu Tyr Pro Ala Asn					
	465		470		475
Tyr Val Glu Ala Ile Gln					480
	485				

&lt;210&gt; 6205

&lt;211&gt; 926

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6205

```

nngcgccctcc canagagaat aggcccccagc ttcaatggag gctgtggaga gatggagaag
60
tgggggtgaag attttgagaga atctcggggg agagcaaggg aaggggaagga gtttgccgac
120
agccagaagt tgctgttcat ggaaacttcg gccaaactga accaccaggt gtcggaggtg
180
ttcaatacag tggcccaaga gctactgcag agaagcgacg aggagggcca ggctctacng
240
ggggaagaca cccctgcct gggccatggc cagctctagg tggattctga ttactgtca
300
atgctggggtt gctcccagc cctagatgtt cctggaagtt ggcccccttt atgaaaacca
360
cttcccacag ccagtgggaa ctgccagagg aagatctggc gtcacatggc tcccaggaaa
420
gtgctgtgcc ctatccccac tgataccatc tgattccccg atgcctgtgc ctgttccacc
480

```

tggacggtgg cccctcagc ctggcagcct ctggacagag aggaaggaag gattggaaaa  
 540  
 gtccccgcag cacagcgacg gtgggaagat gccttacgtc tgatcttgat gggggcactg  
 600  
 gcctggagcc tggggccacc tgcttctggg ggggtgggga gcaggccaga tggaggtggt  
 660  
 ggtgccagga agaaatggag cgatgactga ctgtggggtg ggcccaggat ttccgcatct  
 720  
 tgggtgaagt gcccttggga agggcagctg ggggcagtgg cgccagttcc ctcccatggt  
 780  
 ctcccgctg gcaatgtggt gaagctgagt ttctgtccaa tgagcaggaa gattctgaga  
 840  
 catttcgctt gagatataag ttgtactgcg tatgcagttt ttccctccaa aattaaattg  
 900  
 cttttgacaa tctgaaaaaa aaaaaa  
 926

<210> 6206

<211> 92

<212> PRT

<213> Homo sapiens

<400> 6206

Xaa	Arg	Leu	Pro	Xaa	Arg	Ile	Gly	Pro	Ser	Phe	Asn	Gly	Gly	Cys	Gly
1				5				10					15		
Glu	Met	Glu	Lys	Trp	Gly	Glu	Asp	Phe	Gly	Glu	Ser	Arg	Gly	Arg	Ala
			20					25					30		
Arg	Glu	Gly	Lys	Glu	Phe	Ala	Asp	Ser	Gln	Lys	Leu	Leu	Phe	Met	Glu
			35				40					45			
Thr	Ser	Ala	Lys	Leu	Asn	His	Gln	Val	Ser	Glu	Val	Phe	Asn	Thr	Val
			50			55					60				
Ala	Gln	Glu	Leu	Leu	Gln	Arg	Ser	Asp	Glu	Glu	Gly	Gln	Ala	Leu	Xaa
65					70					75				80	
Gly	Glu	Asp	Thr	Pro	Cys	Leu	Gly	His	Gly	Gln	Leu				
			85					90							

<210> 6207

<211> 1384

<212> DNA

<213> Homo sapiens

<400> 6207

nntgatcaga ggtcctgggt gtctggggaa gctgggctgt gcgtgtatgc gtctaccatg  
 60  
 tgggggtgcc tgtgagtgtg ctggggcgct tgcaagtgaag gcctcctgag accactccac  
 120  
 ggaaacaccg ggaatccctg cagctgagcc tgtctctcac gggaccggga agctggagag  
 180  
 agccccaacc ctgcccgctg gggccgagct ccctgctcct gcagcagtcg cgtgccccac  
 240  
 actctgagtc tgccctatcc acagctgctg ggcctctctg tggccaccat ggtgactctt  
 300  
 acctacttcg gggcccactt tgctgtcatc cgccgagcgt ccctggagaa gaaccggtac  
 360

caggctgtgc accaatgggc cttctctgcg gggttgagcc tgggtggcct cctgactctg  
 420  
 ggagccgtgc tgagcgctgc agccaccgtg agggaggccc agggcctcat ggcagggggc  
 480  
 ttccctgtgct tctccctggc gttctgygca cagggtgcagg tgggtgttctg gagactccac  
 540  
 agccccaccc aggtggagga cgccatgctg gacacctacg acctgggtata tgagcaggcg  
 600  
 atgaaaggta cgtccacagt ccggcggcag gagctggcgg ccatccagga cgtgtttctg  
 660  
 tgctgtggga agaagtctcc ttccagccgt ctggggagca cagaggctga cctgtgtcag  
 720  
 ggagaggagg cggcgagaga ggactgcctt caggggcatcc ggagcttcct gaggacacac  
 780  
 cagcaggctg cctccagcct gaccagcatc ggccctggccc tcacgggtgc cgccttgctc  
 840  
 ttccagctcct tcctgtggtt tgccatccgc tgtggctgca gcttgagacc caagggcaaa  
 900  
 tacaccctga cccacagagc atgtggccgc cagccccagg agcccagcct cttgagatgc  
 960  
 tcccagggtg gaccacacaca ttgtctccac tccgaagcag ttgctattgg tccaagagga  
 1020  
 tgctcgggta gtcttcggtg gctgcaggag agcgaatgctg cgcctctgcc cctctcctgc  
 1080  
 cactctggctg cccacagagc tctccagggc agaagtcgcy gtgggctcag tgggtgcctt  
 1140  
 gagcggggtc tctcagactg acgtcaggcc ttgggtgggt gcactctcac ctggaggctc  
 1200  
 cggggaagca tctgcctcca ggaccattca ggctgttgac aagtcaactc ctcatggctg  
 1260  
 taggactgag gttcccaagt ccttgtccct ggtcctgtgg tccctccacc ttcaaaccag  
 1320  
 caatggtgca ttgagcaaat tgtggtcaaa tatacatcac atcaaatcta ccatcttaaa  
 1380  
 aaaa  
 1384

<210> 6208  
 <211> 290  
 <212> PRT  
 <213> Homo sapiens

<400> 6208  
 Met Val Thr Leu Thr Tyr Phe Gly Ala His Phe Ala Val Ile Arg Arg  
 1 5 10 15  
 Ala Ser Leu Glu Lys Asn Pro Tyr Gln Ala Val His Gln Trp Ala Phe  
 20 25 30  
 Ser Ala Gly Leu Ser Leu Val Gly Leu Leu Thr Leu Gly Ala Val Leu  
 35 40 45  
 Ser Ala Ala Ala Thr Val Arg Glu Ala Gln Gly Leu Met Ala Gly Gly  
 50 55 60  
 Phe Leu Cys Phe Ser Leu Ala Phe Xaa Ala Gln Val Gln Val Val Phe  
 65 70 75 80  
 Trp Arg Leu His Ser Pro Thr Gln Val Glu Asp Ala Met Leu Asp Thr

	85		90		95										
Tyr	Asp	Leu	Val	Tyr	Glu	Gln	Ala	Met	Lys	Gly	Thr	Ser	His	Val	Arg
	100							105					110		
Arg	Gln	Glu	Leu	Ala	Ala	Ile	Gln	Asp	Val	Phe	Leu	Cys	Cys	Gly	Lys
	115						120					125			
Lys	Ser	Pro	Phe	Ser	Arg	Leu	Gly	Ser	Thr	Glu	Ala	Asp	Leu	Cys	Gln
	130					135					140				
Gly	Glu	Glu	Ala	Ala	Arg	Glu	Asp	Cys	Leu	Gln	Gly	Ile	Arg	Ser	Phe
	145				150					155				160	
Leu	Arg	Thr	His	Gln	Gln	Val	Ala	Ser	Ser	Leu	Thr	Ser	Ile	Gly	Leu
			165					170					175		
Ala	Leu	Thr	Val	Ser	Ala	Leu	Leu	Phe	Ser	Ser	Phe	Leu	Trp	Phe	Ala
			180					185					190		
Ile	Arg	Cys	Gly	Cys	Ser	Leu	Asp	Arg	Lys	Gly	Lys	Tyr	Thr	Leu	Thr
	195						200					205			
Pro	Arg	Ala	Cys	Gly	Arg	Gln	Pro	Gln	Glu	Pro	Ser	Leu	Leu	Arg	Cys
	210					215					220				
Ser	Gln	Gly	Gly	Pro	Thr	His	Cys	Leu	His	Ser	Glu	Ala	Val	Ala	Ile
	225				230					235				240	
Gly	Pro	Arg	Gly	Cys	Ser	Gly	Ser	Leu	Arg	Trp	Leu	Gln	Glu	Ser	Asp
			245					250					255		
Ala	Ala	Pro	Leu	Pro	Leu	Ser	Cys	His	Leu	Ala	Ala	His	Arg	Ala	Leu
			260					265					270		
Gln	Gly	Arg	Ser	Arg	Gly	Gly	Leu	Ser	Gly	Cys	Pro	Glu	Arg	Gly	Leu
	275						280						285		
Ser	Asp														
	290														

&lt;210&gt; 6209

&lt;211&gt; 2269

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6209

```

ggcaggctgg gaattagcca gcaaagatgc cgatgaggtc atcaagcaga aggaaatctc
60
acccacacca ggtggactta caaggctgtg tgtgccctgg gcagggtgga catgtccagg
120
gcggggaaac cctggatatt tcaactctgaa gtggtttctt gaaagaaaac tcaactgact
180
caggccatga gcatctttta cactgaagca agcatctcct cacaagtgc ccttacaagt
240
cactagagtc atattcaaca ttacaaaatg cagtgtctact taaattttta agcactgagg
300
gaccaagaaa tgggctgatc aagtccttgg ccactcactg ttaagagcca ggatttacag
360
atcaatgact gttcctattg tccaagaaat aattttctag caaagcatac acactttatt
420
aaatttcaca gccagcagcg ctttcagtc acaacagatt tctcagagga aacatggata
480
ttttgcgtag gcagaaacag tgaggagtac aaagcaaagc tataaatacc accaatgggt
540
ctgctatgtg catccgatat tttttgccg atctgaaata ctgcaagggc ttaaccattc
600

```

aaacaccgca tgacaacgaa ccagtgaggac tgtgaaactc aggctgcagg aggggtggctt  
660  
gtcagctggt gaagccactt ggctttggac tccatcggtc atctttacgc aagagcagag  
720  
atgaacgggtg ggtcacggct atgacgtgaa ggagaaagag aagacacact cacagaacag  
780  
gatggagagc ttcaataatt ttttaaaagc ttggaaccac cacctgcttt cccaatcttg  
840  
ggctgggggtt ttgacttttc ttgatcatca atctgacttg aagcctttta ccagttacaa  
900  
tacagacatg gccagatgac ctgcttggtta ggaaggctgt ggccatcttt gtttctgaaa  
960  
cagtcttatc tcatctgtcc actgctgctc tggagggtc aggaccagca ctgcagacac  
1020  
tcggccatgc tgtgagttag ccagacata cgcgtggaat ctgaacaccc aacgctggcg  
1080  
ttcccggtcc agtctgaggg ctgcggtccc agcgttctgc cacacacacg cctgcctctc  
1140  
tctagtctct cactgcctg gcttcctcgc ttgcaaaacc cagcatgtga aatgaggaca  
1200  
cctccacgga gacccttcg agcagggagg tttcatcaca ctttctgttc ttgccaagga  
1260  
gtctatcgcc tcatccacaa catctgcttg cgggagaaac agcaaatgtg tccctctgag  
1320  
ggaaggactg aggggggctt tggtagtcac agattgagac acatttctgc gaaaactggg  
1380  
attatgtttc tgcacaggaa aacaaagtgt taaaaatatt cccatcctcc ctccaactcc  
1440  
cttctgtcac acagtcccaa gtgaacttga aaaaggcca gaagtgaaca cttaggggtgc  
1500  
atttaccttt ctctgaaga tgggaagaca caggatgct tgccataaat atctgccgag  
1560  
aggtagagcag ctgtggcctg ggaaggcgct tgctcttctt ccacatcagc cagaaggcag  
1620  
atcacacctt cagagcacc ctcagaaccc agatggcgaa tcaaagtgc gaaaaagAAC  
1680  
acccgcttcc tcattagtca tttaggaaga taagatagca tgggacaggg agaacaacca  
1740  
tgttctgaat ggagactttt tcagggtccc aaacttggga cagtgagtgt gaccccat  
1800  
cctgtggttt ctgcctgacc cttctaagcc agagggtgaga aaacaactcc cagagaccac  
1860  
gactctcacc ctggaggta cctgttcccc tgcagggtgt gctctctgac aacccttagg  
1920  
caggggtggg ctccagcttt tggaaagcaac cctacctagc tggccccca agcattaaga  
1980  
agcttccctg atggggccat gttttggtct ccttttaagc cctcagtcac aatgtacctt  
2040  
ctgagcttgt cctactatc agatgatttt ctctctgagt tgcaatactg ctcaatttag  
2100  
gtggctacct gtgttcattc aagctctgga agtggtgaag ggaacttaac cattgagttt  
2160  
ctgtgaagta ttttgccatc ctaaaatccc tgagagtga actgttgaat catgctcact  
2220

ttcttcacat acatactctt ggactatggg gaccaagtct gttgaattc  
2269

<210> 6210  
<211> 165  
<212> PRT  
<213> Homo sapiens

<400> 6210  
Met Gly Ile Phe Leu Thr Leu Cys Phe Pro Val Gln Lys His Asn Thr  
1 5 10 15  
Ser Phe Arg Arg Asn Val Ser Gln Ser Val Thr Thr Lys Ala Leu Leu  
20 25 30  
Ser Pro Ser Leu Arg Gly Thr His Leu Leu Phe Leu Pro Gln Ala Asp  
35 40 45  
Val Val Asp Glu Ala Ile Asp Ser Leu Ala Arg Thr Lys Gly Val Met  
50 55 60  
Lys Pro Pro Cys Ser Glu Gly Ser Pro Trp Arg Cys Pro His Phe Thr  
65 70 75 80  
Cys Trp Val Leu Gln Ala Arg Lys Pro Gly Ser Gly Gly Thr Arg Glu  
85 90 95  
Arg Gln Ala Cys Val Trp Thr Ser Ala Gly Ala Ala Leu Arg Leu  
100 105 110  
Ala Arg Glu Arg Gln Arg Trp Val Phe Arg Phe His Ala Tyr Val Trp  
115 120 125  
Ala His Ser Gln His Gly Arg Val Ser Ala Val Leu Val Leu Thr Leu  
130 135 140  
Pro Glu Gln Gln Trp Thr Asp Glu Ile Arg Leu Phe Gln Lys Gln Arg  
145 150 155 160  
Trp Pro Gln Pro Ser  
165

<210> 6211  
<211> 2163  
<212> DNA  
<213> Homo sapiens

<400> 6211  
ngccgcccgc ctcagcccaa catggcgatg cacaacaagg cggcgccgcc gcagatccccg  
60  
gacacccggc gggagctggc ggagctcgtg aaggggaagc aggagctggc ggaaacattg  
120  
gcaaatttgg agcgacagat ctatgctttt gaggggaagct acctggaaga cactcagatg  
180  
tatggcaata ttattcgtgg ctgngatcg gtatctgacc aaccannaaa aaactccaat  
240  
agcaaaaatg atcgaaggaa ccggaagttt aaggaagctg agcggctctt cagtaaatcc  
300  
tcggttacct cagcagctgc agtaagtgc ttggcaggag ttcaggacca gctcattgaa  
360  
aagaggggagc caggaagtgg gacggaaagt gacacttctc cagacttcca caatcaggaa  
420  
aatgagccca gccaggagga ccctgaggat ctggatggat ctgtgcaggg agtgaaacct  
480

cagaaggctg cttcttctac ttcctcaggg agtcaccaca gcagccataa aaagcgaaag  
540  
aataaaaaacc ggcacagccc gtctggcatg tttgattatg actttgagat tgatctgaag  
600  
ttaaacaaaa aaccacgagc tgactattag aagacacatt agtcagaag cttccaggct  
660  
gtagagccct gcttcccttc tctgacctca caaagataaa catccttcac ctgagttcgt  
720  
ggccatccac ctctgctctc ccagaccag tgccctgtgac tttgagtagt ttgttctaaa  
780  
tgtggtgaca aacaagtcac ttctgtaaga cattgggtct tactttatgt gatttttagt  
840  
aacagaactg caggaagatc aagacaatgt tgtaatcccg gcaagttgct aactgtgcgt  
900  
ttctcccttc ttagaatgaa tgtctccccc aaaactggct ggcaccagct tcatctgtga  
960  
tacccttcaa gaaatgttct ctggttttgt tttatgctga aagtagaaca caagtcacat  
1020  
ttcagatgga ggctgtaaat atctggcatt ttcttatatt gttttatgtt ttcttgtttt  
1080  
tctcttgttg tttttatctt attttctttg gggttttttt gtaatgcctt tgtacagctc  
1140  
atactttcct gctgacatat ctgatcatct ctttcatgca gttgccaata ttcataactg  
1200  
aaaataatct ggtttatcat aagtaaaatg ggaaacttgc ctctgttttt tgcaagggga  
1260  
ggtaaaagt gtttagtaat tacctatctt aaatctttct gagttagtag tagattcatg  
1320  
ttcaagggaac agggaaaaatg gaaaaacata agtttaaatc agttcttttt aaataacttt  
1380  
ttattctttt gtataataaa aatttcacag gcttcaaatt ctcatgcttt acttttaaac  
1440  
ccgagattgt ttttttcaact tatttattca tatcatgcct tatggaaatt tctttttctg  
1500  
tattttctct ctttgctggg attcacctga ttaaatattg ctctaaaaat caccatggca  
1560  
tatggaaagt ctcaaaatta taccaaaagt gataacttat gtcgttctta agtggagtga  
1620  
aaggatagca tcagtgatag ccagtgttgc ccaccaggtc tccctttctt ggagggcttg  
1680  
ttggggctga ggaatctgct agtaatcggt acctgcctct agtgcgtggg tgaacttgcg  
1740  
acagggtctg gctgcacatt ggaatcacct gagaagcttt aaaatactca tgcctggatc  
1800  
ccatccctag agactggggg acagcctagt tattgggaat ttctttaaaa gagttcctgg  
1860  
gattctgata agaagccagg ttgagaacca ctacattaga agactgaatg gtttaattta  
1920  
catcctatgt tatgattggg ccaagggata agatttgggg tctaaccttt cctttcactc  
1980  
tagttagtca tagtccttga cttatgccta tatctttgta agaaatagta tgtttcattt  
2040  
gtgatagtat tggtagggct gaatatggat ggcactctact gtaaaacaag tctaccttgt  
2100



cagatgtgca aaagctttcca ctcttggtct caaataaaact ttgtgggtt tttttaaaaa  
 2160  
 aaa  
 2163

<210> 6212  
 <211> 209  
 <212> PRT  
 <213> Homo sapiens

<400> 6212  
 Xaa Arg Pro Pro Gln Pro Asn Met Ala Met His Asn Lys Ala Ala Pro  
 1 5 10 15  
 Pro Gln Ile Pro Asp Thr Arg Arg Glu Leu Ala Glu Leu Val Lys Gly  
 20 25 30  
 Lys Gln Glu Leu Ala Glu Thr Leu Ala Asn Leu Glu Arg Gln Ile Tyr  
 35 40 45  
 Ala Phe Glu Gly Ser Tyr Leu Glu Asp Thr Gln Met Tyr Gly Asn Ile  
 50 55 60  
 Ile Arg Gly Trp Xaa Ser Val Ser Asp Gln Pro Xaa Lys Asn Ser Asn  
 65 70 75 80  
 Ser Lys Asn Asp Arg Arg Asn Arg Lys Phe Lys Glu Ala Glu Arg Leu  
 85 90 95  
 Phe Ser Lys Ser Ser Val Thr Ser Ala Ala Ala Val Ser Ala Leu Ala  
 100 105 110  
 Gly Val Gln Asp Gln Leu Ile Glu Lys Arg Glu Pro Gly Ser Gly Thr  
 115 120 125  
 Glu Ser Asp Thr Ser Pro Asp Phe His Asn Gln Glu Asn Glu Pro Ser  
 130 135 140  
 Gln Glu Asp Pro Glu Asp Leu Asp Gly Ser Val Gln Gly Val Lys Pro  
 145 150 155 160  
 Gln Lys Ala Ala Ser Ser Thr Ser Ser Gly Ser His His Ser Ser His  
 165 170 175  
 Lys Lys Arg Lys Asn Lys Asn Arg His Ser Pro Ser Gly Met Phe Asp  
 180 185 190  
 Tyr Asp Phe Glu Ile Asp Leu Lys Leu Asn Lys Lys Pro Arg Ala Asp  
 195 200 205  
 Tyr

<210> 6213  
 <211> 1160  
 <212> DNA  
 <213> Homo sapiens

<400> 6213  
 acgcgtgaag ggaaggggaa agagggtcacc aagggcagag gtgtccaggc cggagccagg  
 60  
 ggccccactg ttgggatgct ggctgcagtg gggcgcccca agcccaggtc cctctgtctt  
 120  
 tctctttcga ctttgcagct gtacttgttt tgctctctta cccgcaggag ctgacatgga  
 180  
 cccaaatcct cgggcccgcc tggagcgcca gcagctccgc cttcggggagc ggcaaaaatt  
 240

cttcgaggac attttacagc cagagacaga gtttgccttt cctctgtccc atctgcatct  
 300  
 cgagtcgcag agacccccca taggtagtat ctcatccatg gaagtgaatg tggacacact  
 360  
 ggagcaagta gaacttattg accttgggga cccggatgca gcagatgtgt tcttgccttg  
 420  
 cgaagatcct ccaccaaccc cccagtcgtc tggggtggac aaccatttgg aggagctgag  
 480  
 cctgccnggt gcctacatca gacaggacca catctaggac ctctcctccc tcctcctccg  
 540  
 actcctccac caacctgcat agcccaaacc caagtgatga tggagcagat acgcccttgg  
 600  
 cacagtcgga tgaagaggag gaaaggggtg atggaggggc agagcctgga gcctgcagct  
 660  
 agcagtgggc ccctgcctac agactgacca cgctggctat tctccacatg agaccacagg  
 720  
 ccagaccaga gcctgtcggg agaagaccag actctttact tgcagtaggc accagagggtg  
 780  
 ggaaggatgg tgggattgtg tacctttcta agaattaacc ctctcctgct ttactgctaa  
 840  
 ttttttctg ctgcaaccct cccaccagtt tttggcttac tcctgagata tgatttgcga  
 900  
 atgaggagag agaagatgag gttggacaag atgccactgc ttttcttagc actcttccct  
 960  
 cccctaaacc atcccgtagt cttctaatac agtctctcag acaagtgtct ctagatggat  
 1020  
 gtgaactcct taactcatca agtaagggtg tactcaagcc atgctgcctc cttacatcct  
 1080  
 ttttggaaac gagcacggta taaataataa actaataata atatgccaac aaaaaaaaaa  
 1140  
 aaaaaaaaaa aaaaaaaaaa  
 1160

<210> 6214  
 <211> 101  
 <212> PRT  
 <213> Homo sapiens

<400> 6214  
 Pro Trp Gly Pro Gly Cys Ser Arg Cys Val Leu Ala Leu Arg Arg Ser  
 1 5 10 15  
 Ser Thr Asn Pro Pro Val Val Trp Gly Gly Gln Pro Phe Gly Gly Ala  
 20 25 30  
 Glu Pro Ala Xaa Cys Leu His Gln Thr Gly Pro His Leu Gly Pro Pro  
 35 40 45  
 Pro Pro Pro Pro Thr Pro Pro Pro Thr Cys Ile Ala Gln Ile Gln  
 50 55 60  
 Val Met Met Glu Gln Ile Arg Pro Trp His Ser Arg Met Lys Arg Arg  
 65 70 75 80  
 Lys Gly Val Met Glu Gly Gln Ser Leu Glu Pro Ala Ala Ser Ser Gly  
 85 90 95  
 Pro Leu Pro Thr Asp  
 100

<210> 6215  
 <211> 651  
 <212> DNA  
 <213> Homo sapiens

<400> 6215  
 ncagctccat aatccccctcc agaacattct gcaacagccc catgatcccc tctagaacat  
 60  
 tccacaatag cctcacaggt cccctgtaga acattccacc acagcccat gatccccctg  
 120  
 ctctcagag catgtggccg ccagccccag gagccagcc tcttgagatg ctcccagggt  
 180  
 ggaccacac attgtctcca ctccgaagca gttgctattg gtccaagagg atgctcgggt  
 240  
 agtcttcgggt ggctgcagga gagcgatgct ggcctctgc cctctcctg ccacctgggt  
 300  
 gccacagag ctctccaggg cagaagtgc ggtgggtca gtgggtgccc tgagcggggg  
 360  
 ctctcagact gacgtcaggc cttggtgggc tgcactctca cctggaggct ccggggaagc  
 420  
 atctgcctcc aggaccattc aggtgttga caagtcaact cctcatgggt gtaggactga  
 480  
 gggtcccaag tccttgctcc tggctcctgtg gtccctccac ctccaacca gcaatgggtg  
 540  
 attgagcaaa ttgtgggtcaa atatacatca catcaaattt accatcttaa ccattgttaa  
 600  
 gtgtatgggt tgtggcatta aatacattca cattgttgtg caaccatcac c  
 651

<210> 6216  
 <211> 87  
 <212> PRT  
 <213> Homo sapiens

<400> 6216  
 Met Ile Pro Leu Leu Leu Arg Ala Cys Gly Arg Gln Pro Gln Glu Pro  
 1 5 10 15  
 Ser Leu Leu Arg Cys Ser Gln Gly Gly Pro Thr His Cys Leu His Ser  
 20 25 30  
 Glu Ala Val Ala Ile Gly Pro Arg Gly Cys Ser Gly Ser Leu Arg Trp  
 35 40 45  
 Leu Gln Glu Ser Asp Ala Ala Pro Leu Pro Leu Ser Cys His Leu Ala  
 50 55 60  
 Ala His Arg Ala Leu Gln Gly Arg Ser Arg Gly Gly Leu Ser Gly Cys  
 65 70 75 80  
 Pro Glu Arg Gly Leu Ser Asp  
 85

<210> 6217  
 <211> 2955  
 <212> DNA  
 <213> Homo sapiens

<400> 6217

ngcagcgggg aggcgggagc cgcgggaggc gccgcccggc gaggcgtggg ggctgcgggg  
60  
cgggcccac cgtgggggagc acttgagcgt tgagggcgcg cggggagggc agccaccatg  
120  
ttcagccagc agcagcagca gcagctccag caacagcagc agcagctcca gcagttacag  
180  
cagcagcagc tccagcagca gcaattgcag cagcagcagt tactgcagct ccagcagctg  
240  
ctccagcagt cccaccacaca gggcccgttg cccatggctg tcagccgggg gctccccccg  
300  
cagcagccac agcagccgct tctgaatctc cagggcacca actcagcctc cctcctcaac  
360  
ggctccatgc tgcagagagc ttgctttta cagcagttgc aaggactgga ccagtttgca  
420  
atgccaccag ccagctatga cactgccggg ctcaccatgc ccacagcaac actgggtaac  
480  
ctccgaggct atggcatggc atccccaggc ctgcagccc ccagcctcac acccccacaa  
540  
ctggccactc caaatttgca acagttcttt cccagggcca ctgccagtc cttgctggga  
600  
cctcctcctg ttgggggtccc catgaaccct tcccagttca acctttcagg acggaacccc  
660  
cagaaacagg cccggacctc ctctctacc accccaatc gaaaggattc ttcttctcag  
720  
acaatgcctg tggaagacaa gtcagacccc ccagaggggt ctgaggaagc cgcagagccc  
780  
cggatggaca caccagaaga ccaagattta ctgccctgcc cagaggacat cgccaaggaa  
840  
aaacgcactc cagcacctga gctgagcct tgtgaggcgt ccgagctgcc agcaaagaga  
900  
ttgaggagct cagaagagcc cacagagaag gaacctccag ggcagttaca ggtgaaggcc  
960  
cagccgcagg cccggatgac agtaccgaaa cagacacaga caccagacct gctgcctgag  
1020  
gccctggaag cccaagtgtc gccacgattc cagccacggg tcttgaggtt ccaggcccag  
1080  
gtgcagtcac agactcagcc gcggatacca tccacagaca cccagggtgca gccaaagctg  
1140  
cagaagcagg cgaaacaca gacctctcca gagcacttag tgctgcaaca gaagcaggtg  
1200  
cagccacagc tgcagcagga ggcagagcca cagaagcagg tgcagccaca ggtacagcca  
1260  
caggcacatt cacaggggcc aaggcagggt cagctgcagc aggaggcaga gccgctgaag  
1320  
caggtgcagc cacagggtgca gcccagggca cattcacagc cccaaggca ggtgcagctg  
1380  
cagctgcaga agcagggtcca gacacagaca tatccacagg tccacacaca ggcacagcca  
1440  
agcgtccagc cacaggagca tctccagcg cagggtgtag tacagccacc agagcagacc  
1500  
catgagcagc ctacacacca gccgcagggt tcgttgctgg ctccagagca aacaccagtt  
1560  
gtggttcatg tctgcgggct ggagatgcca cctgatgcag tagaagctgg tggaggcatg  
1620

gaaaagacct tgccagagcc tgtgggcacc caagtcagca tggaagagat tcagaatgag  
1680  
tcggcctgtg gcctagatgt gggagaatgt gaaaacagag cgagagagat gccaggggta  
1740  
tggggcgccg ggggctccct gaaggtcacc attctgcaga gcagtgcag cggggccttt  
1800  
agcactgtac ccctgacacc tgtcccccgc cccagtgcact ccgtctcctt caccctgcg  
1860  
gctaccagca ctccctctaa gcaggccctc cagttcttct gctacatctg caaggccagc  
1920  
tgctccagcc agcaggagtt ccaggaccac atgtcggagc ctacgacca gcagcggcta  
1980  
ggggagatcc agcacatgag ccaagcctgc ctctgtccc tgctgcccgt gcccgggac  
2040  
gtcctggaga cagaggatga ggagcctcca ccaaggcgt ggtgcaacac ctgccagctc  
2100  
tactacatgg gggacctgat ccaacaccgc aggacacagg accacaagat tgccaaacaa  
2160  
tccttgcgac ccttctgcac cgtttgcaac cgctacttca aaacccctcg caagtgttg  
2220  
gagcacgtga agtcccagg gcataaggac aaagccaagg agctgaagtc gcttgagaaa  
2280  
gaaattgctg gccaaatga ggaccacttc attacagtgg acgctgtggg ttgcttcgag  
2340  
ggtgatgaag aagaggaaga ggatgatgag gatgaagaag agatcgaggt tagggaggaa  
2400  
ctctgcaagc aggtgaggtc cagagatata tccagagagg agtgggaagg ctccggagacc  
2460  
tacagcccca atactgcata tgggtgtggac ttcttggtgc ccgtgatggg ctatatctgc  
2520  
cgcatctgcc acaagttcta tcacagcaac tcagggggcac agctctccca ctgcaagtc  
2580  
ctggggccact ttgagaacct gcagaaatac aaggcggcca agaaccag cccaccacc  
2640  
cgacctgtga gccgccggtg cgcaatcaac gcccggaacg ctttgacagc cctgttcacc  
2700  
tccagcggcc gccaccctc ccagcccaac acccaggaca aaacaccag caaggtgacg  
2760  
gctcgaccct cccagccccc actacctcgg cgctcaacce gcctcaaac ctgatagagg  
2820  
gacctccctg tccctggcct gcctgggtcc agatctgcta atgcttttta ggagtctgcc  
2880  
tggaactttt gacatggttc atgtttttac tcaaaatcca ataaaacaag gtagtttggc  
2940  
aaaaaaaaaa aaaaa  
2955

&lt;210&gt; 6218

&lt;211&gt; 133

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6218

Val Arg Ser Arg Asp Ile Ser Arg Glu Glu Trp Lys Gly Ser Glu Thr

```

      1           5           10           15
Tyr Ser Pro Asn Thr Ala Tyr Gly Val Asp Phe Leu Val Pro Val Met
      20           25           30
Gly Tyr Ile Cys Arg Ile Cys His Lys Phe Tyr His Ser Asn Ser Gly
      35           40           45
Ala Gln Leu Ser His Cys Lys Ser Leu Gly His Phe Glu Asn Leu Gln
      50           55           60
Lys Tyr Lys Ala Ala Lys Asn Pro Ser Pro Thr Thr Arg Pro Val Ser
      65           70           75           80
Arg Arg Cys Ala Ile Asn Ala Arg Asn Ala Leu Thr Ala Leu Phe Thr
      85           90           95
Ser Ser Gly Arg Pro Pro Ser Gln Pro Asn Thr Gln Asp Lys Thr Pro
      100          105          110
Ser Lys Val Thr Ala Arg Pro Ser Gln Pro Pro Leu Pro Arg Arg Ser
      115          120          125
Thr Arg Leu Lys Thr
      130

```

<210> 6219  
 <211> 2495  
 <212> DNA  
 <213> Homo sapiens

```

<400> 6219
tttttttttt ttttttcgcg gtggaggatc aggtttaatg gtcactatga gggatatcgt
60
catcggtcca agcccgcccc ccgccccagc cctccctcag ctgggaacac agccagggtg
120
cctcagaccc ctggctctgc acaagggggg cctgccccct cgccccagnn ctatatacac
180
gacagcccat cctgctggcc gtggacaaaa gctgggagct cntgtgccc agtcaggagc
240
ccctacagtc caccagctgc gcggccgggt ccaggnggcc cactgtggtg ccagcgagtt
300
tctcaaaacc cagggcccag cccagcnnt gggcccctgc caagccccag gcctgtgtgc
360
tgggatggag cctccacact gaggtggta aaagctgaac tcaacagcag caatgagagt
420
gctgggtggg cttgggggga tggggagcag gccccacca gagcctcttc tgaaggaggg
480
gacgctgcgc ccttctctcc tgctgccag actgcccta ccgggtccgg cgccggctga
540
gggtctaagta agcagggatg gggggtggca agaggagtgt aagtgaagc acagacagtc
600
ggagactcgg ccagtgtaga cagaccaga gactcggcca gtgtagacag agccaggctg
660
ggcagcccg cgacgctgc cccacgcaca cgggccaccc tgggtgctggt gatcgatacg
720
gcagggaggg ggtgggcagg gagggctctg aacacatgtg ggctgctggg ctgctgggcc
780
gggggtgccta cactgtaact agcagcatag tgcttaacta gttaacaaga aatgctgctt
840
ccctttgaat tgtttcgggg gtgtagaaat tgcacttatt tctatgaacc ccatggaggg
900

```

atgcccacag ctgagcctcc aggcgaggca tggcaggtca gtgcctggcc gctgagcatc  
960  
cacggggccac agggcgggat cctcccggcc cccagggact gcagcctctg cggccacggg  
1020  
tgcagcgagg accggaaccc acagggggaa cctgagcaac gtctgaggtg ccctgaagtg  
1080  
gtccacggcg agaccggagc cacacagtcc cggggagcac gaggcggccc agccccaggc  
1140  
cccggctgag agggagtggc ctgatgggga ctgggcggag gcctctgccc ctacagggac  
1200  
gtcgtcaaag tccagcagct tcgagtgtg gcggctcttc cacaggcgat acaaccggaa  
1260  
gtcaaagtac gtctcgatca tctgcttccc ttgggctgag agctccaggg gtgactcgaa  
1320  
ggtgacccta taaggagtca tgagggtcct gaggttcttg aacagcttct ctccattggg  
1380  
gttccccaga atgtagcagc ccatgatgtg gatgacgttc ggctctgggt tcaactttgct  
1440  
catcaggcgg ctacagccgt tccagaagt aatcatgtcc tcttccttct ccactttggc  
1500  
aaagggtggc accttgttct tgaggagata gaggtgtcca ggacctccct ggcagaaaat  
1560  
cagcattttc cagatcttgg ctcccttctg gtagacgttc agcttccctct ctatctcctc  
1620  
aaggatgtcc tcgaagggtg cgtgctcatg gtcgtagagg atggggatga tggaggggtc  
1680  
atcccgcg atgatagtgg ggatgtactc agccttgggc accttgagg aaatgagcat  
1740  
gacctttggt ggcacgaagc cttcgggtgc gcaggccaca gcctccaggc ccttctcagt  
1800  
gtcccagtc aggtcctcga aggcctcgtc cagcgtgcag tgggagctct gcaggtcact  
1860  
gctgtctcgg gagtcgtggg aagtgtcggc tttcatgggg gtggggtcgc tccaggaccg  
1920  
gctgaagctc cgctcgcgcg ctacgcgaac gtctgggcct tacacctcc ggctgccgac  
1980  
catgcgcagg tgtttgcgga agttcctctg gattacagac gcggaatcat tctcccgttt  
2040  
ccggcgcttc ctctccgcgt agccctcga caccgagatg gcttgcatag ttgtgggtgc  
2100  
tgtctggaag ctgaaaagat tttccttggg gaaccaggta cgaataggga tgtcgtcaga  
2160  
cacacggta acgctgtaca tcctctccag cttcttgcgg cgaccggagg tctcaggcag  
2220  
agggtggctg tccagcccaa agggccgagg ggtggggcca gagccagct gggcacatac  
2280  
cggggcactc ccttgaggcc cctggcgngc tgcccgcaca gctttctggc agggcctgct  
2340  
gacgtcctcc cggctgccac cagggtggc gcgcaggggc tggctgtgat ggtgagggtg  
2400  
ccgctgccgc cgcctcttca ccaccgccag ctcaatggcc tccgcctcag ggctgggcag  
2460  
cagggcaggc tcccagaga tgaagtacac tcgag  
2495

<210> 6220  
 <211> 179  
 <212> PRT  
 <213> Homo sapiens

<400> 6220  
 Phe Phe Phe Phe Ser Arg Trp Arg Ile Arg Phe Asn Gly His Tyr  
 1 5 10 15  
 Glu Gly Ile Val His Arg Ser Lys Pro Gly Pro Arg Pro Ser Pro Pro  
 20 25 30  
 Ser Ala Gly Asn Thr Ala Arg Cys Pro Gln Thr Pro Gly Ser Ala Gln  
 35 40 45  
 Gly Gly Pro Ala Pro Ser Pro Gln Xaa Tyr Ile His Asp Ser Pro Ser  
 50 55 60  
 Cys Trp Pro Trp Thr Lys Ala Gly Ser Ser Xaa Cys Pro Val Arg Ser  
 65 70 75 80  
 Pro Tyr Ser Pro Pro Ala Ala Arg Pro Gly Pro Gly Xaa Pro Leu Trp  
 85 90 95  
 Cys Gln Arg Val Ser Gln Asn Pro Gly Pro Ser Pro Ser Xaa Gly Pro  
 100 105 110  
 Leu Pro Ser Pro Arg Pro Val Cys Trp Asp Gly Ala Ser Thr Leu Arg  
 115 120 125  
 Leu Val Lys Ala Glu Leu Asn Ser Ser Asn Glu Ser Ala Gly Trp Ala  
 130 135 140  
 Trp Gly Asp Gly Glu Gln Ala Pro Pro Arg Ala Ser Ser Glu Gly Gly  
 145 150 155 160  
 Asp Ala Ala Pro Phe Leu Pro Ala Ala Gln Thr Ala Pro Thr Gly Ser  
 165 170 175  
 Gly Ala Gly

<210> 6221  
 <211> 1487  
 <212> DNA  
 <213> Homo sapiens

<400> 6221  
 nnctgcagga aaaagtgcctg ctctgacgca gatgctctag tgttttctaa gtgacagctc  
 60  
 ttagggcacc ctggatgccc cttgattcca ccctcattac ttgtcctctc tcggtgctgc  
 120  
 ctcttgctcc ctgtcttctg ttgttttca tattactccc gtatttctctg acatatctgc  
 180  
 atttttctac ttactgtgtc ccgatgcagc tgctcctggt ttccacatcc aaggtttctc  
 240  
 ctccatggca ctactgacgt ttggggctga cgaattcttt ggggacagga tggggcatgt  
 300  
 cctgtgcatt ttaggatggt gagtagcagc cctggcctgc atccactaga tgccagttga  
 360  
 acctccccag gttctgaagc cagacacaag atgaaaaagc taactccaaa acagaaattt  
 420  
 tctgaagatt tagagtcata taagatatca gtggtaatgc aggaatcagc tgagaaactt  
 480



tcagaaaagt tacataagtg taaagaattt gtggacagtt gcaggcttac tttccctact  
 540  
 agtgggtgatg aatacagcag gggcttcctt caaacctta accttattca agatcagaat  
 600  
 gcgcaaacaa ggtggaagca gggcagatat gatgaggatg gcaaaccctt caatcaaaga  
 660  
 tctttgcttt tggggcatga gcgaattctc acaagagcaa agtcttatga atgcagtga  
 720  
 tgtggaaaag tcattaggcg taaggcatgg ttgatcaac atcaaagaat tcacttttta  
 780  
 gagaatcctt ttgagtgtaa ggtctgtggg caagccttca gacagcgtc agctcttacg  
 840  
 gtccataaac agtgtcacct gcaaaacaag ccatacagat gtcagtactg tggaaagtgt  
 900  
 tttcggcagc tcgcgtatct tgttgaacat aagaggattc acaccaaaga aaaaccttat  
 960  
 aaatgtagca aatgtgaaaa aacgtttagt cagaattcaa cctttattcg acatcagggtg  
 1020  
 atccatagtg gagaaaaacg ccataaatgc cttgagtgtg gaaaagcctt tggccggcat  
 1080  
 tcaacccttc tatgtcatca acagattcac agtaaacga acaccataa atgcagtga  
 1140  
 tgtggacagt cctttggtag gaatgtggat ctcattcagc atcaaagaat ccatacaag  
 1200  
 gaggaattct ttcaatgtgg agaattgtgg aaaacgttta gttttaagag gaatctttt  
 1260  
 cgacatcagg tcattcacac tggaagccaa ctctaccaat gtgtcatatg tggaaaatct  
 1320  
 ttcaagtggc acacaagctt tattaagcac cagggcactc acaaaggaca gatatccaca  
 1380  
 tgatgttaat tggaaagcag tcattggaga actagaactt ataaacctct acttcaagt  
 1440  
 tgtatcacgt aattgtttcc atgaaaagca ataaatgtaa caaaggg  
 1487

<210> 6222

<211> 330

<212> PRT

<213> Homo sapiens

<400> 6222

Met Lys Lys Leu Thr Pro Lys Gln Lys Phe Ser Glu Asp Leu Glu Ser  
 1 5 10 15  
 Tyr Lys Ile Ser Val Val Met Gln Glu Ser Ala Glu Lys Leu Ser Glu  
 20 25 30  
 Lys Leu His Lys Cys Lys Glu Phe Val Asp Ser Cys Arg Leu Thr Phe  
 35 40 45  
 Pro Thr Ser Gly Asp Glu Tyr Ser Arg Gly Phe Leu Gln Asn Leu Asn  
 50 55 60  
 Leu Ile Gln Asp Gln Asn Ala Gln Thr Arg Trp Lys Gln Gly Arg Tyr  
 65 70 75 80  
 Asp Glu Asp Gly Lys Pro Phe Asn Gln Arg Ser Leu Leu Leu Gly His  
 85 90 95  
 Glu Arg Ile Leu Thr Arg Ala Lys Ser Tyr Glu Cys Ser Glu Cys Gly

```

      100      105      110
Lys Val Ile Arg Arg Lys Ala Trp Phe Asp Gln His Gln Arg Ile His
      115      120      125
Phe Leu Glu Asn Pro Phe Glu Cys Lys Val Cys Gly Gln Ala Phe Arg
      130      135      140
Gln Arg Ser Ala Leu Thr Val His Lys Gln Cys His Leu Gln Asn Lys
      145      150      155      160
Pro Tyr Arg Cys His Asp Cys Gly Lys Cys Phe Arg Gln Leu Ala Tyr
      165      170      175
Leu Val Glu His Lys Arg Ile His Thr Lys Glu Lys Pro Tyr Lys Cys
      180      185      190
Ser Lys Cys Glu Lys Thr Phe Ser Gln Asn Ser Thr Leu Ile Arg His
      195      200      205
Gln Val Ile His Ser Gly Glu Lys Arg His Lys Cys Leu Glu Cys Gly
      210      215      220
Lys Ala Phe Gly Arg His Ser Thr Leu Leu Cys His Gln Gln Ile His
      225      230      235      240
Ser Lys Pro Asn Thr His Lys Cys Ser Glu Cys Gly Gln Ser Phe Gly
      245      250      255
Arg Asn Val Asp Leu Ile Gln His Gln Arg Ile His Thr Lys Glu Glu
      260      265      270
Phe Phe Gln Cys Gly Glu Cys Gly Lys Thr Phe Ser Phe Lys Arg Asn
      275      280      285
Leu Phe Arg His Gln Val Ile His Thr Gly Ser Gln Leu Tyr Gln Cys
      290      295      300
Val Ile Cys Gly Lys Ser Phe Lys Trp His Thr Ser Phe Ile Lys His
      305      310      315      320
Gln Gly Thr His Lys Gly Gln Ile Ser Thr
      325      330

```

&lt;210&gt; 6223

&lt;211&gt; 944

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6223

```

acccccaccc tcaactgtgca cccccaccc tccaccacaca cccccatccc cacctgcacc
60
ccacccacaca ctcacaaccc cccactccca cctgcaaacac cccactccc caccgcacc
120
ccccaacttc ccatcccccc actcctctcc attcctcttc ttgcttgtgc gcataagcaa
180
gtcccaactca ttgcaactgt aaccaatacc aagcatgaga acaggaacta gctccaccct
240
ctaaccacca ctccagctgc agacgccacg gagtttgtgc aggggcgcag cgctccagcc
300
atggcgcggt cgctcgctcca cgacaccgtg ttctactgcc tgagtgtata ccaggtaaaa
360
ataagcccca cacctcagct gggggcagca tcaagcgcag aaggccatgt tggccaagga
420
gctccaggcc tcatgggtaa tatgaacct gagggcggtg tgaaccacga gaacggcatg
480
aaccgcgatg gcggcatgat ccccgagggc ggcggtggaa accaggagcc tcggcagcag
540

```

ccgcagcccc cgccggagga gccggcccag gcggccatgg agggtcgcga gcccgagaac  
 600  
 atgcagccac gaactcggcg cacgaagttc acgctgttgc aggtggagga gctggaaagt  
 660  
 gttttccgac acactcaata ccctgatgtg cccacaagaa gggaacttgc cgaaaactta  
 720  
 ggtgtgactg aagacaaagt gcgggtcagt acacttgaaa aagcaatttg agaggacagc  
 780  
 cattctaaaa cctgcttcag ggcattgaag gctttgaagg ctttgcctg aacgttctaa  
 840  
 agttgttgtt tttattattg tcttttttat gttgacaaat aagttttgaa gtttgggttc  
 900  
 cttgtcggta gaaaaggaag taagctccag cttatgggtc tttc  
 944

<210> 6224  
 <211> 156  
 <212> PRT  
 <213> Homo sapiens

<400> 6224  
 Met Ala Arg Ser Leu Val His Asp Thr Val Phe Tyr Cys Leu Ser Val  
 1 5 10 15  
 Tyr Gln Val Lys Ile Ser Pro Thr Pro Gln Leu Gly Ala Ala Ser Ser  
 20 25 30  
 Ala Glu Gly His Val Gly Gln Gly Ala Pro Gly Leu Met Gly Asn Met  
 35 40 45  
 Asn Pro Glu Gly Gly Val Asn His Glu Asn Gly Met Asn Arg Asp Gly  
 50 55 60  
 Gly Met Ile Pro Glu Gly Gly Gly Asn Gln Glu Pro Arg Gln Gln  
 65 70 75 80  
 Pro Gln Pro Pro Pro Glu Glu Pro Ala Gln Ala Ala Met Glu Gly Pro  
 85 90 95  
 Gln Pro Glu Asn Met Gln Pro Arg Thr Arg Arg Thr Lys Phe Thr Leu  
 100 105 110  
 Leu Gln Val Glu Glu Leu Glu Ser Val Phe Arg His Thr Gln Tyr Pro  
 115 120 125  
 Asp Val Pro Thr Arg Arg Glu Leu Ala Glu Asn Leu Gly Val Thr Glu  
 130 135 140  
 Asp Lys Val Arg Val Ser Thr Leu Glu Lys Ala Ile  
 145 150 155

<210> 6225  
 <211> 3851  
 <212> DNA  
 <213> Homo sapiens

<400> 6225  
 nggatccagc tgctgcgcag gtcagaccca gctgcttttg agtcccgcct ggagaaacgc  
 60  
 agtgaatttc ggaagcagcc agtggggcat tccaggcaag gtgattttat caaatgtgtg  
 120  
 gaacagaaga cagatgcctt ggggaaacag tctgtgaaca gaggattcac taaggacaag  
 180

actctcagtt caatctttaa cattgagatg gtaaaagaaa aaactgcaga agaaataaaa  
240  
cagatttggc agcaatattt tgcagcaaaa gatacagtct acgcagttat tcctgcagaa  
300  
aagtttgatt tgatctggaa ccgggctcag tcctgtccaa catttctatg tgctctgcca  
360  
agaaggggaag gttatgagtt tttttagga caatggacag gtactgaact ccacttcact  
420  
gcacttataa atattcagac ccgaggggaa gctgcagcca gccagctgat tttatatcac  
480  
tatacctgaac ttaaggaaga aaagggcata gtgctgatga ctgcagaaat ggattccaca  
540  
tttctgaatg ttgctgaggc acagtgcac gccaccaag ttcagctctt ctacgtact  
600  
gatcggaaag agacctacgg gttagtggag acctttaacc tcagaccaa tgagttcaaa  
660  
tatatgtctg tcatcgctga attggagcaa agcggacttg gacgagaact gaaatgtgcc  
720  
cagaaccaa ataagactta gaactgtaca ggttgccct tcacctagt gactcagccc  
780  
tcgatagtct agagcccacc ccctcctcag gaactcaaga gctcagcatt tataatgagc  
840  
agttggtaat gagttgccct atgtgcttgt cgcaagcagt cacagagatg agccctatta  
900  
cttgatatc aggaacaaag gtacctgaac attctgataa ttatctcagc atacttgagg  
960  
tttcttttt taagtgtctg aggttataac aagagacagc caaggaccta caagacagtt  
1020  
gacttgattt tgcacagtgt aacagcgag ttgcattctg gccactttga ccttatagct  
1080  
cccaaatgat gagtttgta tctttatgaa ctcatgacag gataataagc ttgaagacct  
1140  
gctgtagtta gatatgggct ttaatccttc ccatgcacca gtcagctgaa caaaagcata  
1200  
agccaaacat cctgtttaaa ctgtagaata accagatatt cccatcaggt taaagacttc  
1260  
atctagatga tgccccccag agatgccttt agtgaagta gctggcttgg ggtatcagca  
1320  
aatctcaggt atagttagat aaacaggtag agggcctgca tactattaaa ccatagtttg  
1380  
tggcaccgac ttttctaact ccacctgtta gaagctatgt gtttgaagga atgaatcagt  
1440  
gcagtataaa taaaattctt ttgtaaggag aagattaatc ctggtttgca tgattttttt  
1500  
aaaaacaact ctaaacatga tacgaaaaag tggatgaaag caaatgttcc cagattggat  
1560  
gtggggaaaa tatagcaata attttttttt aagtctggct tacaatgttt gttatacaaa  
1620  
ataatgaaat ctgagttagt tactgtccat tgtgtcaggg ctatgggctg attttatcaa  
1680  
aactcatctt gggactgaaa aattgttttg aatgccagaa ataagaaagt tgttctccag  
1740  
agctggaaac ccactcttcg tttgtagtgt cactgttgtg gctccaagct cagtgatagg  
1800

aaaggacggt gggtacacac cagccttctg aaccaaggc cccagctatt gttgtcagct  
1860  
gcctttacca tggcatttct ttctctttct ttttttctg agatgaagtc ttgctctgtc  
1920  
ttgcccaggc tggagtagac tagcgtgatc tcagctcgtc gcaacctcta cctccctggt  
1980  
tcaagtatt ctgctgcgtc agcctcctga ggagctagga ttacaggcgc atgccacat  
2040  
acctggctta tttttgtatt gttgtagaga cagggtttca ctttgttggc caggctggct  
2100  
ggtctcgaac tcctggcctc aagtgatcca ccacctgac ctcccaaagt gctgggatta  
2160  
cagggtgtgag ccaccgtgcc tggcctgaca tttctttatt gatctaact gctccactct  
2220  
gctgctcctg cctaagatct gggtatatga cactgaatgt ggtgagtggg aatttaagca  
2280  
gtattcgcag tttgtgtgtg tgtgttttct tccttcaga agaattttta taggttgggc  
2340  
ctgtccctaa gctctttaaa taggggtggc atcccactat tctctgagcc gtgtctattt  
2400  
tgtttcacct ttgagtctat gtattgagag agacagatag tattttttta aactgggaa  
2460  
gctgctatcc tttcactatt tctctaaagg ttgagctgtt aactaatgta aattctggac  
2520  
ctgcttctgg tcctggcagt ttatcttttg agaaacttga gtcttatctg ccctgccatt  
2580  
ttcattaaat gccttctgac cttctgaatg ttttgggtcc caagaatttt tgacatcaga  
2640  
tggggtgtt tttattggta tccagttagt tttgcttgc tttccagatg ggcccagtta  
2700  
ttagccatcc atagtacatt gatacacctc caccagcggg tgaggaaatg atggaaaaag  
2760  
gagtaagaag tggccattcg ttttaacat tcctcctgga tttgtcctca gtccccaact  
2820  
gccaagtagg atgtgtccat gtataaatgt gtggggcatg actaaagtac cagtagctg  
2880  
ttctttatat ttatttacct agaaagatct ggcaaagaac tcaaagaaaa ttgtaccatt  
2940  
taatcagtaa atttgtcccc tgggtgctagc atgggtgtat agaaagtgga caggctttag  
3000  
agttaagtga atctgggttc atatgttagt gttgctattc attagctcta tactgttgaa  
3060  
caaattgctt aaactatcta attttggggt ttttttttcc atctaaaata gggataataa  
3120  
tatctacctc ataggattat tgtgagaatt aaattaactt cactatagta gaaaatatca  
3180  
actaccatcc ttttctctac ttcccttgcc cctcattaaa gactaataca agttagcatt  
3240  
tcagatgtgt agatcattct ttattccagt taaaagaaca aactttatct catcagttct  
3300  
gaaactttta gatgcagtag catcacetaa agtgctttta aaatgcagat tctcaggcct  
3360  
caaccgtaca ccaccccc acacacgtac taaatcaaga atatgtgcag aagggtactgg  
3420

gaatctactt gtaatatgt gctccaaatg attctgatgt aggtaattag ccagccacac  
 3480  
 ttgagaacc actgccttat ctattcttta caaaaatgta cattgccagg tctttctttc  
 3540  
 ctgtggatgc taactatagg atatttaggt tcctctgttc tttgtctccc atagtggccc  
 3600  
 cctttgcaaa ctccaaatac attatatatta ttattctttg tgtctttttt cccccactag  
 3660  
 actgtgagct ccttgagggc caggacttat ctctgttcgc agtgccaagg acatggcctg  
 3720  
 gaccatagaa gatactcagt tttttgttga ataaatagggt aatatggatt tcaaccaaaa  
 3780  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa  
 3840  
 aaaaaaaaaa a  
 3851

<210> 6226  
 <211> 246  
 <212> PRT  
 <213> Homo sapiens

<400> 6226  
 Xaa Ile Gln Leu Leu Arg Arg Ser Asp Pro Ala Ala Phe Glu Ser Arg  
 1 5 10 15  
 Leu Glu Lys Arg Ser Glu Phe Arg Lys Gln Pro Val Gly His Ser Arg  
 20 25 30  
 Gln Gly Asp Phe Ile Lys Cys Val Glu Gln Lys Thr Asp Ala Leu Gly  
 35 40 45  
 Lys Gln Ser Val Asn Arg Gly Phe Thr Lys Asp Lys Thr Leu Ser Ser  
 50 55 60  
 Ile Phe Asn Ile Glu Met Val Lys Glu Lys Thr Ala Glu Glu Ile Lys  
 65 70 75 80  
 Gln Ile Trp Gln Gln Tyr Phe Ala Ala Lys Asp Thr Val Tyr Ala Val  
 85 90 95  
 Ile Pro Ala Glu Lys Phe Asp Leu Ile Trp Asn Arg Ala Gln Ser Cys  
 100 105 110  
 Pro Thr Phe Leu Cys Ala Leu Pro Arg Arg Glu Gly Tyr Glu Phe Phe  
 115 120 125  
 Val Gly Gln Trp Thr Gly Thr Glu Leu His Phe Thr Ala Leu Ile Asn  
 130 135 140  
 Ile Gln Thr Arg Gly Glu Ala Ala Ala Ser Gln Leu Ile Leu Tyr His  
 145 150 155 160  
 Tyr Pro Glu Leu Lys Glu Glu Lys Gly Ile Val Leu Met Thr Ala Glu  
 165 170 175  
 Met Asp Ser Thr Phe Leu Asn Val Ala Glu Ala Gln Cys Ile Ala Asn  
 180 185 190  
 Gln Val Gln Leu Phe Tyr Ala Thr Asp Arg Lys Glu Thr Tyr Gly Leu  
 195 200 205  
 Val Glu Thr Phe Asn Leu Arg Pro Asn Glu Phe Lys Tyr Met Ser Val  
 210 215 220  
 Ile Ala Glu Leu Glu Gln Ser Gly Leu Gly Ala Glu Leu Lys Cys Ala  
 225 230 235 240  
 Gln Asn Gln Asn Lys Thr

245

<210> 6227  
 <211> 830  
 <212> DNA  
 <213> Homo sapiens

<400> 6227  
 nnacagcctt cctgaaaaca caccagcgc aggcaccagg ggtcccaccg atggacacac  
 60  
 cttggaggca gcacctacag agcgggtgatt ttcgacatgg gcggagttct cattccttct  
 120  
 ccagggagag tcgctgcaga atgggaggta cagaatcgta tcccttctgg aactatatta  
 180  
 aaggccttga tggaaggagg tgaatatggg ccctggatga gatttatgag agcagaaata  
 240  
 acagcagagg gttttttacg agaatttggg agactttgct ctgaaatgtt aaagacctcc  
 300  
 gtgcctgtgg actcattttt ctctctgttg accagtgagc gaggggcaaa gcagttccca  
 360  
 gtgatgactg aggccataac tcaaatccgg gcaaaaggtc ttcagactgc agtcttgagc  
 420  
 aataattttt atcttcccaa ccagaaaagc tttttgcccc tggaccggaa acagtttgat  
 480  
 gtgattgtgg agtctgcat ggaagggatc tgtaagccag accctaggat ctacaagctg  
 540  
 tgcttgagc agctcgccct gcagccctct gagtccatct ttcttgatga ccttgaaca  
 600  
 aatctaaaag aagctgccag acttggtatt cacaccatta aggttaatga ccagagact  
 660  
 gcagtaaagg aattagaagc tctcttgggt tttacattga gtaggtgt tccaaacact  
 720  
 cggcctgtga aaaagacgat ggaaattccg aaagattcct tgcagaagta cctcaaagac  
 780  
 ttactgggta tccagaccac aggccattg gaactacttc agtttgatca  
 830

<210> 6228  
 <211> 271  
 <212> PRT  
 <213> Homo sapiens

<400> 6228  
 Lys His Thr Gln Arg Arg His Gln Gly Ser His Arg Trp Thr His Leu  
 1 5 10 15  
 Gly Gly Ser Thr Tyr Arg Ala Val Ile Phe Asp Met Gly Gly Val Leu  
 20 25 30  
 Ile Pro Ser Pro Gly Arg Val Ala Ala Glu Trp Glu Val Gln Asn Arg  
 35 40 45  
 Ile Pro Ser Gly Thr Ile Leu Lys Ala Leu Met Glu Gly Gly Glu Asn  
 50 55 60  
 Gly Pro Trp Met Arg Phe Met Arg Ala Glu Ile Thr Ala Glu Gly Phe  
 65 70 75 80  
 Leu Arg Glu Phe Gly Arg Leu Cys Ser Glu Met Leu Lys Thr Ser Val

5410

				85					90				95			
Pro	Val	Asp	Ser	Phe	Phe	Ser	Leu	Leu	Thr	Ser	Glu	Arg	Val	Ala	Lys	
			100					105					110			
Gln	Phe	Pro	Val	Met	Thr	Glu	Ala	Ile	Thr	Gln	Ile	Arg	Ala	Lys	Gly	
			115				120					125				
Leu	Gln	Thr	Ala	Val	Leu	Ser	Asn	Asn	Phe	Tyr	Leu	Pro	Asn	Gln	Lys	
			130			135					140					
Ser	Phe	Leu	Pro	Leu	Asp	Arg	Lys	Gln	Phe	Asp	Val	Ile	Val	Glu	Ser	
					150					155					160	
Cys	Met	Glu	Gly	Ile	Cys	Lys	Pro	Asp	Pro	Arg	Ile	Tyr	Lys	Leu	Cys	
				165				170						175		
Leu	Glu	Gln	Leu	Gly	Leu	Gln	Pro	Ser	Glu	Ser	Ile	Phe	Leu	Asp	Asp	
				180				185					190			
Leu	Gly	Thr	Asn	Leu	Lys	Glu	Ala	Ala	Arg	Leu	Gly	Ile	His	Thr	Ile	
				195			200					205				
Lys	Val	Asn	Asp	Pro	Glu	Thr	Ala	Val	Lys	Glu	Leu	Glu	Ala	Leu	Leu	
						215					220					
Gly	Phe	Thr	Leu	Arg	Val	Gly	Val	Pro	Asn	Thr	Arg	Pro	Val	Lys	Lys	
					230					235					240	
Thr	Met	Glu	Ile	Pro	Lys	Asp	Ser	Leu	Gln	Lys	Tyr	Leu	Lys	Asp	Leu	
				245					250					255		
Leu	Gly	Ile	Gln	Thr	Thr	Gly	Pro	Leu	Glu	Leu	Leu	Gln	Phe	Asp		
				260				265					270			

```
<210> 6229
<211> 3105
<212> DNA
<213> Homo sapiens
```

```

<400> 6229
nngagcggcc gcccgggcag gtaggaggt gagtctctggc cgcggggccg ggcgggggcg
60
ccgctggcag gagcgcttgg ggatcctcca agggcgacca tggccttgct gggtaagcgc
120
tgtgacgtcc ccaccaacgg ctgcggagcc gaccgctgga actccgcgtt caccgcgaaa
180
gacgagatca tcaccagcct cgtgtctgcc ttagactcca tgtgtctcagc gctgtccaaa
240
ctgaacgccg aggtggcctg tgcgcctgtg cacgatgaga gcgcctttgt ggtgggcaca
300
gagaagggga gaatgttctt gaatgcccgg aaggagctac agtcagactt cctcaggttc
360
tgccgagggc ccccgctgga ggatccggag gcagagcacc ccaagaaggt gcagcggggc
420
gaggggtggag gccgtagcct ccctcggtcc tccctggaac atggctcaga tgtgtacctt
480
ctcggaaga tggtagagga ggtgtttgat gttctttata gcgaggccct gggaagggcc
540
agtgtgtgct cactgcccta tgagaggctg ctcagggagc cagggctgct ggccgtgcag
600
gggctgcccg aaggcctggc cttccgaagg ccagccgagt atgaccccaa ggccctcatg
660
gccatcctgg aacacagcca ccgcacccgc ttcaagctca agaggccact tgaggatggc
720

```



gggcgggact cgaaggccct ggtggagctg aacggtgtct ccctgattcc caaggggtca  
780  
cgggactgtg gcctgcatgg ccaggccccc aagggtgccac cccaggacct gcccacaacc  
840  
gccacctcct cctccatggc cagcttcctg tacagcacgg cgctcccaa ccacgccatc  
900  
cgagagctca agcaggaagc accttcctgc ccccttgccc ccagcgacct gggcctgagt  
960  
cggcccatgc cagagcccaa ggccaccggt gcccaagact tctccgactg ttgtggacag  
1020  
aagccactg ggcctggtgg gcctctcatc cagaacgtcc atgcctccaa gcgcattctc  
1080  
ttctccatcg tccatgacaa gtcagagaag tgggacgcct tcataaagga aaccgaggac  
1140  
atcaaacacgc tccgggagtg tgtgcagatc ctgtttaaca gcagatatgc ggaagccctg  
1200  
ggcctgggca acatgggtccc cgtgccctac cggaagattg cctgtgaccc ggaggctgtg  
1260  
gagatcgtgg gcatcccgga caagatcccc ttcaagcgcc cctgcactta cggagtcccc  
1320  
aagctgaagc ggatcctgga ggagcgccat agtatccact tcatacattaa gaggatgttt  
1380  
gatgagcgaa ttttcacagg gaacaagttt accaaagaca ccacgaagct ggagccagcc  
1440  
agcccgccag aggacacctc tgcagaggtc tctagggcca ccgtccttga ccttgctggg  
1500  
aatgctcgtg cagacaaggg cagcatgtct gaagactgtg ggccaggaa cctccgggag  
1560  
ctgggcgggc tgaggccgat caaaattgag ccagaggatc tggacatcat tcaggtcacc  
1620  
gtcccagacc cctcgccaac ctctgaggaa atgacagact cgatgcctgg gcacctgcca  
1680  
tcggaggatt ctggttatgg gatggagatg ctgacagaca aaggctctgag tgaggacgag  
1740  
cggcccgagg agaggcccg ggaggacagc cacggtgacg tgatccggcc cctgcggaag  
1800  
caggtggagc tgctcttcaa cacacgatac gccaaggcca ttggcatctc ggagcccgtc  
1860  
aagggtccgt actccaagtt tctgatgcac ccggaggagc tgtttgtggt gggactgcct  
1920  
gaaggcatct ccctccgag gcccaactgc ttcgggatcg ccaagctccg gaagattctg  
1980  
gaggccagca acagcatcca gtttgtcatc aagaggcccg agctgctcac tgagggagtc  
2040  
aaagagccca tcgtggatag tcaagagagg gattccgggg accctctggt ggacgagagc  
2100  
ctgaagagac agggctttca agaaaattat gacgagaggc tctcacggat cgacatcgcc  
2160  
aacacactaa gggagcaggt ccaggacctt ttcaataaga aatacgggga agccttgggc  
2220  
atcaagtacc cgggtccaggt cccctacaag cggatcaaga gtaaccccg ctcgtgatc  
2280  
atcgaggggc tgccccagc aatcccgttc cgaaagccct gtaccttcgg ctcacagaac  
2340

ctggagagga ttcttgctgt ggctgacaag atcaagtcca cagtcaccag gcctttccaa  
 2400  
 ggactcatcc caaagcctga tgaagatgac gccaacagac tcggggagaa ggtgatcctg  
 2460  
 cgggagcagg tgaaggaact cttcaacgag aaatacgggtg aggccctggg cctgaaccgg  
 2520  
 ccggtgctgg tcccttataa actaatccgg gacagcccag acgccgtgga ggtcacgggt  
 2580  
 ctgccctgatg acatccccct ccggaacccc aacacgtacg acatccaccg gctggagaag  
 2640  
 atcctgaagg cccgagagca tgtccgcatg gtcattcatta accagctcca accctttgca  
 2700  
 gaaatctgca atgatgccaa ggtgccagcc aaagacagca gcattcccaa gcgcaagaga  
 2760  
 aagcgggtct cggaaggaaa ttccgtctcc tcttctctct cgtcttctct ttcctcgtec  
 2820  
 tctaaccctg attcagtggc atcggccaac cagatctcac tcgtgcaatg gccaatgtac  
 2880  
 atgggtggact atgccggcct gaacgtgcag ctcccgggac ctcttaatta ctagacctca  
 2940  
 gtactgaatc aggacctcac tcagaaagac taaaggaaat gtaatttatg tacaaaatgt  
 3000  
 atattcggat atgtatcgat gccttttagt ttttccaatg atttttacac tatattcctg  
 3060  
 ccaccaaggc ctttttaaat aagtaaaaaa aaaaaaaaaa aaaaa  
 3105

<210> 6230

<211> 944

<212> PRT

<213> Homo sapiens

<400> 6230

Met Ala Leu Leu Gly Lys Arg Cys Asp Val Pro Thr Asn Gly Cys Gly  
 1 5 10 15  
 Pro Asp Arg Trp Asn Ser Ala Phe Thr Arg Lys Asp Glu Ile Ile Thr  
 20 25 30  
 Ser Leu Val Ser Ala Leu Asp Ser Met Cys Ser Ala Leu Ser Lys Leu  
 35 40 45  
 Asn Ala Glu Val Ala Cys Val Ala Val His Asp Glu Ser Ala Phe Val  
 50 55 60  
 Val Gly Thr Glu Lys Gly Arg Met Phe Leu Asn Ala Arg Lys Glu Leu  
 65 70 75 80  
 Gln Ser Asp Phe Leu Arg Phe Cys Arg Gly Pro Pro Trp Lys Asp Pro  
 85 90 95  
 Glu Ala Glu His Pro Lys Lys Val Gln Arg Gly Glu Gly Gly Gly Arg  
 100 105 110  
 Ser Leu Pro Arg Ser Ser Leu Glu His Gly Ser Asp Val Tyr Leu Leu  
 115 120 125  
 Arg Lys Met Val Glu Glu Val Phe Asp Val Leu Tyr Ser Glu Ala Leu  
 130 135 140  
 Gly Arg Ala Ser Val Val Pro Leu Pro Tyr Glu Arg Leu Leu Arg Glu  
 145 150 155 160  
 Pro Gly Leu Leu Ala Val Gln Gly Leu Pro Glu Gly Leu Ala Phe Arg

				165					170				175		
Arg	Pro	Ala	Glu	Tyr	Asp	Pro	Lys	Ala	Leu	Met	Ala	Ile	Leu	Glu	His
			180					185					190		
Ser	His	Arg	Ile	Arg	Phe	Lys	Leu	Lys	Arg	Pro	Leu	Glu	Asp	Gly	Gly
			195				200					205			
Arg	Asp	Ser	Lys	Ala	Leu	Val	Glu	Leu	Asn	Gly	Val	Ser	Leu	Ile	Pro
			210			215					220				
Lys	Gly	Ser	Arg	Asp	Cys	Gly	Leu	His	Gly	Gln	Ala	Pro	Lys	Val	Pro
225				230					235						240
Pro	Gln	Asp	Leu	Pro	Pro	Thr	Ala	Thr	Ser	Ser	Ser	Met	Ala	Ser	Phe
				245					250					255	
Leu	Tyr	Ser	Thr	Ala	Leu	Pro	Asn	His	Ala	Ile	Arg	Glu	Leu	Lys	Gln
			260					265					270		
Glu	Ala	Pro	Ser	Cys	Pro	Leu	Ala	Pro	Ser	Asp	Leu	Gly	Leu	Ser	Arg
			275				280					285			
Pro	Met	Pro	Glu	Pro	Lys	Ala	Thr	Gly	Ala	Gln	Asp	Phe	Ser	Asp	Cys
			290			295					300				
Cys	Gly	Gln	Lys	Pro	Thr	Gly	Pro	Gly	Gly	Pro	Leu	Ile	Gln	Asn	Val
305				310						315					320
His	Ala	Ser	Lys	Arg	Ile	Leu	Phe	Ser	Ile	Val	His	Asp	Lys	Ser	Glu
				325					330					335	
Lys	Trp	Asp	Ala	Phe	Ile	Lys	Glu	Thr	Glu	Asp	Ile	Asn	Thr	Leu	Arg
			340						345				350		
Glu	Cys	Val	Gln	Ile	Leu	Phe	Asn	Ser	Arg	Tyr	Ala	Glu	Ala	Leu	Gly
			355				360					365			
Leu	Asn	Met	Val	Pro	Val	Pro	Tyr	Arg	Lys	Ile	Ala	Cys	Asp	Pro	
			370			375				380					
Glu	Ala	Val	Glu	Ile	Val	Gly	Ile	Pro	Asp	Lys	Ile	Pro	Phe	Lys	Arg
385				390						395					400
Pro	Cys	Thr	Tyr	Gly	Val	Pro	Lys	Leu	Lys	Arg	Ile	Leu	Glu	Glu	Arg
				405					410					415	
His	Ser	Ile	His	Phe	Ile	Ile	Lys	Arg	Met	Phe	Asp	Glu	Arg	Ile	Phe
			420					425					430		
Thr	Gly	Asn	Lys	Phe	Thr	Lys	Asp	Thr	Thr	Lys	Leu	Glu	Pro	Ala	Ser
			435				440					445			
Pro	Pro	Glu	Asp	Thr	Ser	Ala	Glu	Val	Ser	Arg	Ala	Thr	Val	Leu	Asp
			450			455				460					
Leu	Ala	Gly	Asn	Ala	Arg	Ser	Asp	Lys	Gly	Ser	Met	Ser	Glu	Asp	Cys
465				470					475						480
Gly	Pro	Gly	Thr	Ser	Gly	Glu	Leu	Gly	Gly	Leu	Arg	Pro	Ile	Lys	Ile
				485					490					495	
Glu	Pro	Glu	Asp	Leu	Asp	Ile	Ile	Gln	Val	Thr	Val	Pro	Asp	Pro	Ser
			500					505					510		
Pro	Thr	Ser	Glu	Glu	Met	Thr	Asp	Ser	Met	Pro	Gly	His	Leu	Pro	Ser
			515												

```

      595              600              605
Gly Ile Ser Leu Arg Arg Pro Asn Cys Phe Gly Ile Ala Lys Leu Arg
 610              615              620
Lys Ile Leu Glu Ala Ser Asn Ser Ile Gln Phe Val Ile Lys Arg Pro
 625              630              635              640
Glu Leu Leu Thr Glu Gly Val Lys Glu Pro Ile Val Asp Ser Gln Glu
      645              650              655
Arg Asp Ser Gly Asp Pro Leu Val Asp Glu Ser Leu Lys Arg Gln Gly
      660              665              670
Phe Gln Glu Asn Tyr Asp Ala Arg Leu Ser Arg Ile Asp Ile Ala Asn
      675              680              685
Thr Leu Arg Glu Gln Val Gln Asp Leu Phe Asn Lys Lys Tyr Gly Glu
      690              695              700
Ala Leu Gly Ile Lys Tyr Pro Val Gln Val Pro Tyr Lys Arg Ile Lys
 705              710              715              720
Ser Asn Pro Gly Ser Val Ile Ile Glu Gly Leu Pro Pro Gly Ile Pro
      725              730              735
Phe Arg Lys Pro Cys Thr Phe Gly Ser Gln Asn Leu Glu Arg Ile Leu
      740              745              750
Ala Val Ala Asp Lys Ile Lys Phe Thr Val Thr Arg Pro Phe Gln Gly
      755              760              765
Leu Ile Pro Lys Pro Asp Glu Asp Asp Ala Asn Arg Leu Gly Glu Lys
      770              775              780
Val Ile Leu Arg Glu Gln Val Lys Glu Leu Phe Asn Glu Lys Tyr Gly
 785              790              795              800
Glu Ala Leu Gly Leu Asn Arg Pro Val Leu Val Pro Tyr Lys Leu Ile
      805              810              815
Arg Asp Ser Pro Asp Ala Val Glu Val Thr Gly Leu Pro Asp Asp Ile
      820              825              830
Pro Phe Arg Asn Pro Asn Thr Tyr Asp Ile His Arg Leu Glu Lys Ile
      835              840              845
Leu Lys Ala Arg Glu His Val Arg Met Val Ile Ile Asn Gln Leu Gln
      850              855              860
Pro Phe Ala Glu Ile Cys Asn Asp Ala Lys Val Pro Ala Lys Asp Ser
 865              870              875              880
Ser Ile Pro Lys Arg Lys Arg Lys Arg Val Ser Glu Gly Asn Ser Val
      885              890              895
Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Asn Pro Asp Ser
      900              905              910
Val Ala Ser Ala Asn Gln Ile Ser Leu Val Gln Trp Pro Met Tyr Met
      915              920              925
Val Asp Tyr Ala Gly Leu Asn Val Gln Leu Pro Gly Pro Leu Asn Tyr
      930              935              940

```

<210> 6231  
 <211> 471  
 <212> DNA  
 <213> Homo sapiens

<400> 6231  
 tgatcattgg gatcacttgt tggaaatggcc gggttcctgt gcaggcacct agcaaatgtc  
 60  
 taccaatgac aggcctact cacagccact gcactccagc ttgggcgaca gaacgaggcc  
 120

ttgccttttt aaaaaaaaaa aaaaggctca aaaaaagagt atgctgggcc aaaaatctgg  
 180  
 cccctcaggc ctcctgacct ggaggagaaa aagggggccg aagcccccg ttgccccat  
 240  
 ctccatatgg aatggcaciaa cccctcgagg ggaaccccc cctaaccata gttctaaaaa  
 300  
 ggggacaaaa aaatggggcg tggatttttc aacgccggaa acccaattcc caccctctgg  
 360  
 ccggccggtc ttagggattc caacttgga cccaacctgg gcgtattctg ggccttactt  
 420  
 gtttcttggt ggaattggta ttccgttccc atttccccca ctttccaacc c  
 471

<210> 6232  
 <211> 138  
 <212> PRT  
 <213> Homo sapiens

<400> 6232  
 Met Ser Thr Asn Asp Arg Pro Tyr Ser Gln Pro Leu His Ser Ser Leu  
 1 5 10 15  
 Gly Asp Arg Thr Arg Pro Cys Leu Phe Lys Lys Lys Lys Ala Gln  
 20 25 30  
 Lys Lys Ser Met Leu Gly Gln Lys Ser Gly Pro Ser Gly Leu Leu Thr  
 35 40 45  
 Trp Arg Arg Lys Arg Gly Pro Lys Pro Pro Val Ala Pro Ile Ser Ile  
 50 55 60  
 Trp Asn Gly Thr Thr Pro Arg Gly Glu Pro Pro Asn His Ser Ser  
 65 70 75 80  
 Lys Lys Gly Thr Lys Lys Trp Ala Leu Asp Phe Ser Thr Pro Glu Thr  
 85 90 95  
 Gln Phe Pro Pro Pro Gly Arg Pro Phe Leu Gly Ile Pro Thr Trp Asp  
 100 105 110  
 Pro Thr Trp Ala Tyr Ser Gly Pro Tyr Leu Phe Leu Val Gly Ile Gly  
 115 120 125  
 Ile Pro Phe Pro Phe Pro Pro Pro Ser Asn  
 130 135

<210> 6233  
 <211> 894  
 <212> DNA  
 <213> Homo sapiens

<400> 6233  
 acgcgtgaag ggaaaaagag aaggcgctgt cccgctcttg ctacggtggc ctggaggagt  
 60  
 ggcgaaccg gaacagagaa tttatcactt ctgggactca cagtcgtgat gtctttcaag  
 120  
 aggggaaggag acgattggag tcaactcaat gtgctcaaaa aaagaagagt cggggacctc  
 180  
 ctagccagtt acattccaga ggatgaggcg ctgatgcttc gggatggacg ctttgcttgt  
 240  
 gccatctgcc cccatcgacc ggtactggac accctggcca tgctgactgc ccaccgtgca  
 300

ggcaagaaac atctgtccag cttgcagctt ttctatggca agaagcagcc gggaaaggaa  
 360  
 agaaagcaga atccaaaaca tcagaatgaa ttgagaaggg aagaaaccaa agctgaggct  
 420  
 cctctgctaa ctcagacacg acttatcacc cagagtgtc tgcacagagc tccccactat  
 480  
 aacagtgtct gccgccggaa gtacagacca gaagcccctg gtccctctgt ctccctttcc  
 540  
 cctatgccac cctcagaggt caaactccaa agtgggaaga tcagtaggga acctgaacct  
 600  
 gcggctggcc cacaggccga ggagtcagca actgtctcag cccctgcacc catgagcccc  
 660  
 acaagaagac gageccctga ccattatctc acccttcgaa gctctggatg gatccagat  
 720  
 ggacgaggtc gatgggtaaa agatgaaaat gttgagtttg actctgatga ggaggaacca  
 780  
 cctgatctcc ccttggaactg ataccctttt cccattcatt cacaataaaa ttacaatggg  
 840  
 tgctgagaac ttaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaa aaaa  
 894

<210> 6234  
 <211> 230  
 <212> PRT  
 <213> Homo sapiens

<400> 6234  
 Met Ser Phe Lys Arg Glu Gly Asp Asp Trp Ser Gln Leu Asn Val Leu  
 1 5 10 15  
 Lys Lys Arg Arg Val Gly Asp Leu Leu Ala Ser Tyr Ile Pro Glu Asp  
 20 25 30  
 Glu Ala Leu Met Leu Arg Asp Gly Arg Phe Ala Cys Ala Ile Cys Pro  
 35 40 45  
 His Arg Pro Val Leu Asp Thr Leu Ala Met Leu Thr Ala His Arg Ala  
 50 55 60  
 Gly Lys Lys His Leu Ser Ser Leu Gln Leu Phe Tyr Gly Lys Lys Gln  
 65 70 75 80  
 Pro Gly Lys Glu Arg Lys Gln Asn Pro Lys His Gln Asn Glu Leu Arg  
 85 90 95  
 Arg Glu Glu Thr Lys Ala Glu Ala Pro Leu Leu Thr Gln Thr Arg Leu  
 100 105 110  
 Ile Thr Gln Ser Ala Leu His Arg Ala Pro His Tyr Asn Ser Cys Cys  
 115 120 125  
 Arg Arg Lys Tyr Arg Pro Glu Ala Pro Gly Pro Ser Val Ser Leu Ser  
 130 135 140  
 Pro Met Pro Pro Ser Glu Val Lys Leu Gln Ser Gly Lys Ile Ser Arg  
 145 150 155 160  
 Glu Pro Glu Pro Ala Ala Gly Pro Gln Ala Glu Glu Ser Ala Thr Val  
 165 170 175  
 Ser Ala Pro Ala Pro Met Ser Pro Thr Arg Arg Arg Ala Leu Asp His  
 180 185 190  
 Tyr Leu Thr Leu Arg Ser Ser Gly Trp Ile Pro Asp Gly Arg Gly Arg  
 195 200 205  
 Trp Val Lys Asp Glu Asn Val Glu Phe Asp Ser Asp Glu Glu Glu Pro

210  
 Pro Asp Leu Pro Leu Asp  
 225  
 215  
 230  
 220

<210> 6235  
 <211> 3427  
 <212> DNA  
 <213> Homo sapiens

<400> 6235  
 cctaggggcgc ccgaaccgcg ggcggcgggtg gggacaatgt ggttctttgc ccgggacccg  
 60  
 gtccgggact ttccgttcga gctcatcccg gagccccag agggcggcct gcccgggccc  
 120  
 tggggccctgc accgcggccg caagaaggcc acaggcagcc ccgtgtccat cttcgtctat  
 180  
 gatgtgaagc ctggcgcgga agagcagacc caggtggcca aagctgcctt caagcgcttc  
 240  
 aaaaactctac ggcaccccaa catcctggct tacatcgatg gactggagac agaaaaatgc  
 300  
 ctccacgtcg tgacagaggc tgtgaccccg ttgggaatat acctcaaggc gagagtggag  
 360  
 gctggtggcc tgaaggagct ggagatctcc tgggggctac accagatcgt gaaagccctc  
 420  
 agcttccttg tcaacgactg cagcctcatc cacaacaatg tctgcatggc cgccgtgttc  
 480  
 gtggaccgag ctggcgagtg gaagcttggg ggcctggact acatgtattc ggcccagggc  
 540  
 aacggtgggg gacctcccg caaggggatc ccgagcttg agcagtatga cccccggag  
 600  
 ttggctgaca gcagtggcag agtggtcaga gagaagtggc cagcagacat gtggcgcttg  
 660  
 ggctgcctca ttgggaagt cttcaatggg ccctacctc gggcagcagc cctacgcaac  
 720  
 cctgggaaga tccccaaac gctggtgccc cattactgtg agctggtggg agcaaacccc  
 780  
 aaagtacgtc ccaaccagc ccgcttcttg cagaactgcc gggcacctgg tggcttcatg  
 840  
 agcaaccgct ttgtggagac caacctgttc ctggaggaga ttcagatcaa agagccagcc  
 900  
 gagaagcaaa aattcttcca agagctgagc aagagccttg acgcattccc tgaggatttc  
 960  
 tgtcggcaca aggtgctgcc ccagctgctg accgccttcg agttcggcaa tgctggggcc  
 1020  
 gttgtcctca cggccctctt caaggtgggc aagttcctga gcgctgagga gtatcagcag  
 1080  
 aagatcatcc ctgtggtggt caagatgttc tcatccactg accgggccat gcgcatccgc  
 1140  
 ctctgcagc agatggagca gttcatccag taccttgacg agccaacagt caacaccag  
 1200  
 atcttcccc acgtcgtaca tggcttctg gacaccaacc ctgccatccg ggagcagacg  
 1260  
 gtcaagtcca tgctgctcct ggccccaag ctgaacgagg ccaacctcaa tgtggagctg  
 1320

atgaagcact ttgcacggct acaggccaag gatgaacagg gcccacccg ctgcaacacc  
1380  
acagtctgcc tgggcaaaat cggctcctac ctcagtgtcgc gcaccagaca cagggtcctt  
1440  
acctctgcct tcagccgagc cactagggac ccgtttgcac cgtcccgggt tgcgggtgtc  
1500  
ctgggctttg ctgccacca caacctctac tcaatgaacg actgtgccca gaagatcctg  
1560  
cctgtgctct gcggtctcac tgtagatcct gagaaatccg tgcgagacca ggccttcaag  
1620  
gccattcgga gcttcctgtc caaattggag tctgtgtcgg aggacccgac ccagctggag  
1680  
gaagtggaga aggatgtcca tgcagcctcc agccctggca tgggaggagc cgcagctagc  
1740  
tgggcagggc gggccgtgac cggggtctcc tcaactcacct ccaagctgat ccgttcgcac  
1800  
ccaaccactg ccccaacaga aaccaacatt ccccaaagac ccacgcctga aggagtccct  
1860  
gccccagccc ccacccctgt tcctgccacc cctacaacct caggccactg ggagacgcag  
1920  
gaggaggaca aggacacagc agaggacagc agcactgctg acagatggga cgacgaagac  
1980  
tggggcagcc tggagcagga ggccgagtct gtgctggccc agcaggacga ctggagcacc  
2040  
gggggccaag tgagccgtgc tagtcaggtc agcaactccg accacaaatc ctccaaatcc  
2100  
ccagagtccg actggagcag ctgggaagct gagggctcct gggaaacagg ctggcaggag  
2160  
ccaagctccc aggagccacc tcctgacggc acacggctgg ccagcgagta taactggggt  
2220  
ggcccagagt ccagcgacaa gggcgacccc ttcgctaccc tgtctgcacg tcccagcacc  
2280  
cagccgaggc cagactcttg gggtgaggac aactgggagg gcctcgagac tgacagtcga  
2340  
caggtcaagg ctgagctggc ccggaagaag cgcgaggagc ggcggcggga gatggaggcc  
2400  
aaacgcgccg agaggaaggt ggccaagggc cccatgaagc tgggagcccg gaagctggac  
2460  
tgaaccgtgg cggtggccct tcccggctgc ggagagcccg cccacagat gtatttattg  
2520  
tacaaaacct gtgagcccgg ccggcccagc caggccatct cactgtgaca taatcagagc  
2580  
cacaataaat tctatttcac accccttggt ccgggctcag tctagccctc gggaggcggc  
2640  
tggggtcttg cgcgcctgc gcagcccgcg cccacgtcag acgtgaacat caatttgctt  
2700  
cgaaagccaa gggtaagag gcacgatctg atttatcagt ttctaggaaa caccctctgg  
2760  
gagggaaggca ggcagcgccc gccggagacc ttacaaccgc ccgctaaccg gggagggggg  
2820  
ccggtagggg cgcctcgggt ctcaaggcgc cgggagggtc tgcgggccct gaaggccct  
2880  
gggtccgagc cacaagtcgg ggcagaagtg aggccgagct cgcggaaatc cctcagtgat  
2940



caccgaggtc tgggcccagg gcggcgctcg cggcgtcagc ggccgctg gggaaacgag  
 3000  
 gccccgtgcy ggccgctgcy cgcgaagccg gctttgcaga cgcagcgga ggagccgctg  
 3060  
 gtgttcacgc agcgctcgct cttgcacagc agcccgcgct gggttcagctc tcggcactcg  
 3120  
 tcgatatcca cgcagcgggc gcgggaggcg tcgagctgga agcccgccgg acactcgcac  
 3180  
 acggcgccgc ccggccgagg cagcagcgg ccactcacgc agcgacactc gtctgaatcc  
 3240  
 tcctctgaac tgctctcacc tcttgagggc ttactccca cccaggacca gcacggttgt  
 3300  
 gaggagggtg agcagcccca ccacaagaag gagggtacc tgaacttga tgacacagt  
 3360  
 ttctgcgaca gcgtattggc caccaacgtg acccagcagg agtgctgctg ctctctgggg  
 3420  
 gccggcc  
 3427

<210> 6236  
 <211> 820  
 <212> PRT  
 <213> Homo sapiens

<400> 6236  
 Pro Arg Ala Pro Glu Pro Ala Ala Val Gly Thr Met Trp Phe Phe  
 1 5 10 15  
 Ala Arg Asp Pro Val Arg Asp Phe Pro Phe Glu Leu Ile Pro Glu Pro  
 20 25 30  
 Pro Glu Gly Gly Leu Pro Gly Pro Trp Ala Leu His Arg Gly Arg Lys  
 35 40 45  
 Lys Ala Thr Gly Ser Pro Val Ser Ile Phe Val Tyr Asp Val Lys Pro  
 50 55 60  
 Gly Ala Glu Glu Gln Thr Gln Val Ala Lys Ala Ala Phe Lys Arg Phe  
 65 70 75 80  
 Lys Thr Leu Arg His Pro Asn Ile Leu Ala Tyr Ile Asp Gly Leu Glu  
 85 90 95  
 Thr Glu Lys Cys Leu His Val Val Thr Glu Ala Val Thr Pro Leu Gly  
 100 105 110  
 Ile Tyr Leu Lys Ala Arg Val Glu Ala Gly Gly Leu Lys Glu Leu Glu  
 115 120 125  
 Ile Ser Trp Gly Leu His Gln Ile Val Lys Ala Leu Ser Phe Leu Val  
 130 135 140  
 Asn Asp Cys Ser Leu Ile His Asn Asn Val Cys Met Ala Ala Val Phe  
 145 150 155 160  
 Val Asp Arg Ala Gly Glu Trp Lys Leu Gly Gly Leu Asp Tyr Met Tyr  
 165 170 175  
 Ser Ala Gln Gly Asn Gly Gly Gly Pro Pro Arg Lys Gly Ile Pro Glu  
 180 185 190  
 Leu Glu Gln Tyr Asp Pro Pro Glu Leu Ala Asp Ser Ser Gly Arg Val  
 195 200 205  
 Val Arg Glu Lys Trp Ser Ala Asp Met Trp Arg Leu Gly Cys Leu Ile  
 210 215 220  
 Trp Glu Val Phe Asn Gly Pro Leu Pro Arg Ala Ala Ala Leu Arg Asn

```

225          230          235          240
Pro Gly Lys Ile Pro Lys Thr Leu Val Pro His Tyr Cys Glu Leu Val
245          250          255
Gly Ala Asn Pro Lys Val Arg Pro Asn Pro Ala Arg Phe Leu Gln Asn
260          265          270
Cys Arg Ala Pro Gly Gly Phe Met Ser Asn Arg Phe Val Glu Thr Asn
275          280          285
Leu Phe Leu Glu Glu Ile Gln Ile Lys Glu Pro Ala Glu Lys Gln Lys
290          295          300
Phe Phe Gln Glu Leu Ser Lys Ser Leu Asp Ala Phe Pro Glu Asp Phe
305          310          315          320
Cys Arg His Lys Val Leu Pro Gln Leu Leu Thr Ala Phe Glu Phe Gly
325          330          335
Asn Ala Gly Ala Val Val Leu Thr Pro Leu Phe Lys Val Gly Lys Phe
340          345          350
Leu Ser Ala Glu Glu Tyr Gln Gln Lys Ile Ile Pro Val Val Val Lys
355          360          365
Met Phe Ser Ser Thr Asp Arg Ala Met Arg Ile Arg Leu Leu Gln Gln
370          375          380
Met Glu Gln Phe Ile Gln Tyr Leu Asp Glu Pro Thr Val Asn Thr Gln
385          390          395          400
Ile Phe Pro His Val Val His Gly Phe Leu Asp Thr Asn Pro Ala Ile
405          410          415
Arg Glu Gln Thr Val Lys Ser Met Leu Leu Leu Ala Pro Lys Leu Asn
420          425          430
Glu Ala Asn Leu Asn Val Glu Leu Met Lys His Phe Ala Arg Leu Gln
435          440          445
Ala Lys Asp Glu Gln Gly Pro Ile Arg Cys Asn Thr Thr Val Cys Leu
450          455          460
Gly Lys Ile Gly Ser Tyr Leu Ser Ala Ser Thr Arg His Arg Val Leu
465          470          475          480
Thr Ser Ala Phe Ser Arg Ala Thr Arg Asp Pro Phe Ala Pro Ser Arg
485          490          495
Val Ala Gly Val Leu Gly Phe Ala Ala Thr His Asn Leu Tyr Ser Met
500          505          510
Asn Asp Cys Ala Gln Lys Ile Leu Pro Val Leu Cys Gly Leu Thr Val
515          520          525
Asp Pro Glu Lys Ser Val Arg Asp Gln Ala Phe Lys Ala Ile Arg Ser
530          535          540
Phe Leu Ser Lys Leu Glu Ser Val Ser Glu Asp Pro Thr Gln Leu Glu
545          550          555          560
Glu Val Glu Lys Asp Val His Ala Ala Ser Ser Pro Gly Met Gly Gly
565          570          575
Ala Ala Ala Ser Trp Ala Gly Trp Ala Val Thr Gly Val Ser Ser Leu
580          585          590
Thr Ser Lys Leu Ile Arg Ser His Pro Thr Thr Ala Pro Thr Glu Thr
595          600          605
Asn Ile Pro Gln Arg Pro Thr Pro Glu Gly Val Pro Ala Pro Ala Pro
610          615          620
Thr Pro Val Pro Ala Thr Pro Thr Thr Ser Gly His Trp Glu Thr Gln
625          630          635          640
Glu Glu Asp Lys Asp Thr Ala Glu Asp Ser Ser Thr Ala Asp Arg Trp
645          650          655
Asp Asp Glu Asp Trp Gly Ser Leu Glu Gln Glu Ala Glu Ser Val Leu

```

660 665 670  
 Ala Gln Gln Asp Asp Trp Ser Thr Gly Gly Gln Val Ser Arg Ala Ser  
 675 680 685  
 Gln Val Ser Asn Ser Asp His Lys Ser Ser Lys Ser Pro Glu Ser Asp  
 690 695 700  
 Trp Ser Ser Trp Glu Ala Glu Gly Ser Trp Glu Gln Gly Trp Gln Glu  
 705 710 715 720  
 Pro Ser Ser Gln Glu Pro Pro Pro Asp Gly Thr Arg Leu Ala Ser Glu  
 725 730 735  
 Tyr Asn Trp Gly Gly Pro Glu Ser Ser Asp Lys Gly Asp Pro Phe Ala  
 740 745 750  
 Thr Leu Ser Ala Arg Pro Ser Thr Gln Pro Arg Pro Asp Ser Trp Gly  
 755 760 765  
 Glu Asp Asn Trp Glu Gly Leu Glu Thr Asp Ser Arg Gln Val Lys Ala  
 770 775 780  
 Glu Leu Ala Arg Lys Lys Arg Glu Glu Arg Arg Arg Glu Met Glu Ala  
 785 790 795 800  
 Lys Arg Ala Glu Arg Lys Val Ala Lys Gly Pro Met Lys Leu Gly Ala  
 805 810 815  
 Arg Lys Leu Asp  
 820

<210> 6237  
 <211> 494  
 <212> DNA  
 <213> Homo sapiens

<400> 6237  
 cggcctggga ccattggcgg acatgttccc gatttgagggt gaaacatgaa gagaaaatag  
 60  
 aataacttaat aatgcttttc cgcaaccgct tcttgctgct gctggccctg gctgcgctgc  
 120  
 tggcctttgt gagcctcagc ctgcagttct tccacctgat cccggtgtcg actcctaaga  
 180  
 atggaatgag tagcaagagt cgaaagagaa tcatgcccga ccctgtgacg gagccccctg  
 240  
 tgacagaccc cgtttatgaa gctcttttgt actgcaacat cccagcgtg gccgagcgca  
 300  
 gcatggaagg tcatgccccg catcatttta agctgggtctc agtgcattgtg ttcattcgcc  
 360  
 acggagacag gtacccactg tatgtcattc caaaacaaa gcgaccagaa attgactgca  
 420  
 ctctgtgtgc taacaggaaa ccgtatcacc caaaactgga agctttcatt agtcacatgt  
 480  
 tgagaggatc cgga  
 494

<210> 6238  
 <211> 141  
 <212> PRT  
 <213> Homo sapiens

<400> 6238  
 Met Leu Phe Arg Asn Arg Phe Leu Leu Leu Leu Ala Leu Ala Ala Leu

```

      1           5           10           15
Leu Ala Phe Val Ser Leu Ser Leu Gln Phe Phe His Leu Ile Pro Val
      20           25           30
Ser Thr Pro Lys Asn Gly Met Ser Ser Lys Ser Arg Lys Arg Ile Met
      35           40           45
Pro Asp Pro Val Thr Glu Pro Pro Val Thr Asp Pro Val Tyr Glu Ala
      50           55           60
Leu Leu Tyr Cys Asn Ile Pro Ser Val Ala Glu Arg Ser Met Glu Gly
      65           70           75           80
His Ala Pro His His Phe Lys Leu Val Ser Val His Val Phe Ile Arg
      85           90           95
His Gly Asp Arg Tyr Pro Leu Tyr Val Ile Pro Lys Thr Lys Arg Pro
      100          105          110
Glu Ile Asp Cys Thr Leu Val Ala Asn Arg Lys Pro Tyr His Pro Lys
      115          120          125
Leu Glu Ala Phe Ile Ser His Met Leu Arg Gly Ser Gly
      130          135          140

```

&lt;210&gt; 6239

&lt;211&gt; 911

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6239

```

nnggcggggtt aaagagcgcg ttgctggctg ggcacgcgtg cttgagaagg ttcaatggcg
60
tggcagggaac tagcggccga gttcctgcag gtgccggcgg tgacgcgggc ttacaccgca
120
gcctgtgtcc tcaccaccgc cgcggtgcag ctggagctcc tcagccctt tcaactctac
180
ttcaaccgc accttgtgtt ccggaagttc caggtctgga ggctcgtcac caacttcctc
240
ttcttcgggc ccctgggatt cagcttcttc ttcaacatgc tcttcgtgtt ccgctactgc
300
cgcatgctgg aagagggctc ctcccgggc cgcacggccg acttcgtctt catgtttctc
360
ttcgggggag tccttatgac cctgctggga ctccctggga gcctgttctt cctgggccag
420
gccctcatgg ccattgctgt gtacgtgtgg agccgcccga gccctcgggt gagggccaac
480
ttcttcggcc tgctcacttt ccaggcaccg ttccctgcctt gggcgctcat gggcttctcg
540
ctgctgctgg gcaactccat cctcgtggac ctgctgggga ttgcggtggg ccatatctac
600
tacttcctgg aggacgtctt ccccaaccag cctggaggca agaggtcctt gcagaccctt
660
ggcttcctaa agctgtcctt ggatgccctt gcagaagacc ccaattacct gcccctcctt
720
gaggaacagc caggacccca tctgccacce ccgcagcagt gacccccacc cagggccagg
780
cctaagaggg ttctggcagc ttccatccta cccatgacct ctacttgggg cagaaaaaac
840
ccatcctaaa ggctgggccc atgcaagggc ccacctgaat aaacagaatg agctgcaaaa
900

```

aaaaaaaaa a  
911

<210> 6240  
<211> 235  
<212> PRT  
<213> Homo sapiens

<400> 6240  
Met Ala Trp Gln Gly Leu Ala Ala Glu Phe Leu Gln Val Pro Ala Val  
1 5 10 15  
Thr Arg Ala Tyr Thr Ala Ala Cys Val Leu Thr Thr Ala Ala Val Gln  
20 25 30  
Leu Glu Leu Leu Ser Pro Phe Gln Leu Tyr Phe Asn Pro His Leu Val  
35 40 45  
Phe Arg Lys Phe Gln Val Trp Arg Leu Val Thr Asn Phe Leu Phe Phe  
50 55 60  
Gly Pro Leu Gly Phe Ser Phe Phe Phe Asn Met Leu Phe Val Phe Arg  
65 70 75 80  
Tyr Cys Arg Met Leu Glu Glu Gly Ser Phe Arg Gly Arg Thr Ala Asp  
85 90 95  
Phe Val Phe Met Phe Leu Phe Gly Gly Val Leu Met Thr Leu Leu Gly  
100 105 110  
Leu Leu Gly Ser Leu Phe Phe Leu Gly Gln Ala Leu Met Ala Met Leu  
115 120 125  
Val Tyr Val Trp Ser Arg Arg Ser Pro Arg Val Arg Val Asn Phe Phe  
130 135 140  
Gly Leu Leu Thr Phe Gln Ala Pro Phe Leu Pro Trp Ala Leu Met Gly  
145 150 155 160  
Phe Ser Leu Leu Leu Gly Asn Ser Ile Leu Val Asp Leu Leu Gly Ile  
165 170 175  
Ala Val Gly His Ile Tyr Tyr Phe Leu Glu Asp Val Phe Pro Asn Gln  
180 185 190  
Pro Gly Gly Lys Arg Leu Leu Gln Thr Pro Gly Phe Leu Lys Leu Leu  
195 200 205  
Leu Asp Ala Pro Ala Glu Asp Pro Asn Tyr Leu Pro Leu Pro Glu Glu  
210 215 220  
Gln Pro Gly Pro His Leu Pro Pro Pro Gln Gln  
225 230 235

<210> 6241  
<211> 1515  
<212> DNA  
<213> Homo sapiens

<400> 6241  
tgcggccgct gccttgacc cagcgccacc cgcacacggc gctccgctag ccaggccggg  
60  
agcaagagcc aggcggtgga gaagccgccg tcggagaagc cgcggctgag gcgctcgtcg  
120  
cgccggggccc caggaggagg gccgggggag ccgcccgcgc ctgagctggc gttgctccc  
180  
ccaccgccgc cgccgccgcc gactcccgcg accccgacgt cctcggcgtc caacctggac  
240

ctgggagcgc agcgggagcg ctgggagacg ttccagaagc ggcagaagct tacctccgag  
 300  
 ggtgcccga agctcctgct agacaccttt gaataccagg gcctggtgaa gcacacagga  
 360  
 ggctgccact gtggagcagt tcgttttgaa gtttgggcct cagcagactt gcatatattt  
 420  
 gactgcaatt gcagcatttg caagaagaag cagaatagac acttcattgt tccagcttct  
 480  
 cgcttcaagc tcctgaaggg agctgagcac ataacgactt acacgttcaa tactcacaaa  
 540  
 gcccgacata ctttctgtaa gagatgtggc gttcagagct tctatactcc acgatcaaac  
 600  
 cccggaggct tcggaattgc ccccaactgc ctggatgagg gcaactgtcg gagtatggc  
 660  
 actgaggaat tcaatggcag cgattgggag aaggccatga aagagcaca gaccatcaag  
 720  
 aacatgtcta aagagtggc tttctcctct cctgccctga aaaggaggaa tgattggggc  
 780  
 cagcaacttt gctctccctg ccgtgcctcg gtggtgctcc tgaatgtggc tgacctgggc  
 840  
 tgctgggtcc gttgactagg gtcactctga tctctgcagt ttgctccagc taccagtctc  
 900  
 tttaggcagc tctttgtcct ccctctgccc agattttgat gtagtcta tgcacatcct  
 960  
 ctcttcccaa cttttgtgtg atccagcaga gcatgtgaga ctctttgata tgcaccttca  
 1020  
 tgtattatct tgctcagttc tctgaggttg ggatcattat tatttcccat tttgcagatg  
 1080  
 agagaattga ggcagagaaa ggttcagcac ctgaccttg gttacacagc tggtcattct  
 1140  
 ggcttcaatc gcaggactac cagcctgtgc tcttcaccac ttagcttccc tgactcaggc  
 1200  
 cacttccctg gagcgtttagc tggattctga gagtagtttc caagccagag ctttcagaga  
 1260  
 gcttttggtc gtaggacaat ttttaagacat cagggttcttg aatgttttgt gtttttttaa  
 1320  
 gtctcagatt tatcttctta cttcctactt ctccaaaaag actgagagct gacatatttg  
 1380  
 attgtaagct ctttgaggca gagttcttgt aatcgtctct gtataaaaca gtgccacccc  
 1440  
 cagtgcctg tacttgtagt cttcaatcag agctgtcctg ttaaatagag caagtttttc  
 1500  
 ctagaccac attct  
 1515

<210> 6242  
 <211> 245  
 <212> PRT  
 <213> Homo sapiens

<400> 6242  
 Cys Gly Arg Cys Leu Gly Pro Ser Ala Thr Arg Thr Arg Arg Ser Ala  
 1 5 10 15  
 Ser Gln Ala Gly Ser Lys Ser Gln Ala Val Glu Lys Pro Pro Ser Glu

	20		25		30										
Lys	Pro	Arg	Leu	Arg	Arg	Ser	Ser	Arg	Arg	Ala	Pro	Gly	Gly	Gly	Pro
	35		40		45										
Gly	Glu	Pro	Pro	Pro	Pro	Glu	Leu	Ala	Leu	Leu	Pro	Pro	Pro	Pro	Pro
	50		55		60										
Pro	Pro	Pro	Thr	Pro	Ala	Thr	Pro	Thr	Ser	Ser	Ala	Ser	Asn	Leu	Asp
	65		70		75										80
Leu	Gly	Glu	Gln	Arg	Asp	Ala	Trp	Glu	Thr	Phe	Gln	Lys	Arg	Gln	Lys
			85		90										95
Leu	Thr	Ser	Glu	Gly	Ala	Ala	Lys	Leu	Leu	Leu	Asp	Thr	Phe	Glu	Tyr
			100		105										110
Gln	Gly	Leu	Val	Lys	His	Thr	Gly	Gly	Cys	His	Cys	Gly	Ala	Val	Arg
			115		120										125
Phe	Glu	Val	Trp	Ala	Ser	Ala	Asp	Leu	His	Ile	Phe	Asp	Cys	Asn	Cys
			130		135										140
Ser	Ile	Cys	Lys	Lys	Lys	Gln	Asn	Arg	His	Phe	Ile	Val	Pro	Ala	Ser
			145		150										160
Arg	Phe	Lys	Leu	Leu	Lys	Gly	Ala	Glu	His	Ile	Thr	Thr	Tyr	Thr	Phe
			165		170										175
Asn	Thr	His	Lys	Ala	Gln	His	Thr	Phe	Cys	Lys	Arg	Cys	Gly	Val	Gln
			180		185										190
Ser	Phe	Tyr	Thr	Pro	Arg	Ser	Asn	Pro	Gly	Gly	Phe	Gly	Ile	Ala	Pro
			195		200										205
His	Cys	Leu	Asp	Glu	Gly	Thr	Val	Arg	Ser	Met	Val	Thr	Glu	Glu	Phe
			210		215										220
Asn	Gly	Ser	Asp	Trp	Glu	Lys	Ala	Met	Lys	Glu	His	Lys	Thr	Ile	Lys
			225		230										240
Asn	Met	Ser	Lys	Glu											
			245												

<210> 6243  
 <211> 326  
 <212> DNA  
 <213> Homo sapiens

<400> 6243  
 gcgcgccagg gagagaagga gaggaactga tggaacaaag tcaaagagga agtgggataa  
 60  
 gataggacat aaggacacgt ggagcattca gatccagaga ggatgatcag cacctcttcc  
 120  
 tctgagacca gagggacaaa ccataatgag tgaagagatg aggacattct taaagtggag  
 180  
 ctagcaaagc tgggaatggc cttccacaag aggaaaccta agactggacc cagaatagta  
 240  
 aaggtgggtt tggggacttg aggcaagtga gaaagctctg gaaatgccgc tggataaatt  
 300  
 ctgtagggat gcattcctgg agagtg  
 326

<210> 6244  
 <211> 104  
 <212> PRT  
 <213> Homo sapiens

&lt;400&gt; 6244

```

Met His Pro Tyr Arg Ile Tyr Pro Ala Ala Phe Pro Glu Leu Ser His
 1             5             10             15
Leu Pro Gln Val Pro Lys Pro Thr Phe Thr Ile Leu Gly Pro Val Leu
      20             25             30
Gly Phe Leu Leu Trp Lys Ala Ile Pro Ser Phe Ala Ser Ser Thr Leu
      35             40             45
Arg Met Ser Ser Ser Leu His Ser Leu Trp Phe Val Pro Leu Val Ser
      50             55             60
Glu Glu Glu Val Leu Ile Ile Leu Ser Gly Ser Glu Cys Ser Thr Cys
      65             70             75             80
Pro Tyr Val Leu Ser Tyr Pro Thr Ser Ser Leu Thr Leu Phe His Gln
      85             90             95
Phe Leu Ser Phe Ser Pro Trp Arg
      100

```

&lt;210&gt; 6245

&lt;211&gt; 6609

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6245

```

tctggagtct gcctcatttt gaatatatct ctctgggtctt tgggctgctg attttaaaat
60
aagtctcttg ttcaagtcaa cctgttactt gccattggat ggtaatatat gacttttcaa
120
tcttatctcg attgataagc ggactcccag tttttgcctt ctctttgccc cagaatttgg
180
agacctcggg cctctccctt gcttttctcc tctttcctag attttctcaa gtgtccctgt
240
ttagtcttcc ctctctcagct tggtctcctga gaacatttgc tgctgctttt gttttttag
300
gtgttggaac atcagataaa gaaagacctg gctgacaagg agacactgga gaacatgatg
360
cagagacacg aggaggaggc ccatgagaag ggcaaaattc tcagcgaaca gaaggcgatg
420
atcaatgcta tggattccaa gatcagatcc ctggaacaga ggattgtgga actgtctgaa
480
gccaataaac ttgcagcaaa tagcagtctt tttaccctaa ggaacatgaa ggcccaagaa
540
gagatgattt ctgaactcag gcaacagaaa ttttacctgg agacacaggc tgggaagtgt
600
gaggcccgag accgaaaact ggaggagcag ctggagaaga tcagccacca agaccacagt
660
gacaagaatc ggctgctgga actggagaca agattgcggg aggtcagtct agagcacgag
720
gagcagaaac tggagctcaa gcgccagctc acagagctac agctctccct gcaggagcgc
780
gagtcacagt tgacagccct gcaggctgca cgggcggccc tggagagcca gcttcgccag
840
gcgaagacag agctggaaga gaccacagca gaagctgaag aggagatcca ggcactcacg
900
gcacatagag atgaaatcca gcgcaaatat gatgctcttc gtaacagctg tactgtaatc
960

```



acagacctgg aggagcagct aaaccagctg accgaggaca acgctgaact caacaaccaa  
1020  
aacttctact tgtccaaaca actcgaatgag gcttctggcg ccaacgacga gattgtacaa  
1080  
ctgcgaagtg aagtggacca tctccgccgg gagatcacgg aacgagagat gcagcttacc  
1140  
agccagaagc aaacgatgga ggctctgaag accacgtgca ccatgctgga ggaacaggtc  
1200  
atggatttgg aggccctaaa cgatgagctg ctgaaaaag agcggcagtg ggaggcctgg  
1260  
aggagcgtcc tgggtgatga gaaatcccag tttgagtgtc ggggttcgaga gctgcagaga  
1320  
atgctggaca ccgagaaaca gagcagggcg agagccgac agcggatcac cgagtctcgc  
1380  
caggtgggtg agctggcagt gaaggagcac aaggctgaga ttctcgctct gcagcaggct  
1440  
ctcaaagagc agaagctgaa ggccgagagc ctctctgaca agctcaatga cctggagaag  
1500  
aagcatgcta tgcttgaat gaatgccga agcttacagc agaagctgga gactgaacga  
1560  
gagctcaaac agaggcttct ggaagagcaa gccaaattac agcagcagat ggacctgcag  
1620  
aaaaatcaca ttttccgtct gactcaagga ctgcaagaag ctctagatcg ggctgatcta  
1680  
ctgaagacag aaagaagtga cttggagtat cagctggaaa acattcaggt tctctattct  
1740  
catgaaaagg tgaatatgga aggcactatt tctcaacaaa ccaaactcat tgattttctg  
1800  
caagccaaaa tggaccaacc tgctaaaaag aaaaagggtc ctctgcagta caatgagctg  
1860  
aagctggccc tggagaagga gaaagctcgc tgtgcagagc tagaggaagc ccttcagaag  
1920  
acccgcctcg agctccggtc cgcccgagg gaagctgccc accgcaaagc aacggaccac  
1980  
ccacacccat ccacgccagc caccgcgagg cagcagatcg ccatgtctgc catcgtgcgg  
2040  
tcgccagagc accagcccag tgccatgagc ctgctggccc cgccatccag ccgcagaaag  
2100  
gagtcttcaa ctccagagga atttagtcgg cgtcttaagg aacgcagca ccacaatatt  
2160  
cctcaccgat tcaacgtagg actgaacatg cgagccacaa agtggtgctgt gtgtctggat  
2220  
accgtgcact ttggacgcca ggcatccaaa tgtctcgaat gtcagggtgat gtgtcaccac  
2280  
aagtgtctca cgtgcttgcc agccacctgc ggcttgccctg ctgaatatgc cacacacttc  
2340  
accgaggcct tctgccgtga caaaatgaac tccccaggtc tccagaccaa ggagcccagc  
2400  
agcagcttgc acctggaagg gtggatgaag gtgcccagga ataacaaacg aggacagcaa  
2460  
ggctgggaca ggaagtacat tgtcctggag ggatcaaaag tcctcattta tgacaatgaa  
2520  
gccagagaag ctggacagag gccggtggaa gaatttgagc tgtgccttcc cgacggggat  
2580

gtatctattc atggtgccgt tgggtgcttc gaactcgcaa atacagccaa agcagatgtc  
2640  
ccatacatat tgaagatgga atctcaccgc cacaccacct gctggcccg gagaacctc  
2700  
tacttgctag ctcccagctt ccctgacaaa cagcgctggg tcaccgcctt agaatacgtt  
2760  
gtcgcagggt ggagagtctt tagggaaaa gcagaagctg atgctaaact gcttgaaac  
2820  
tccttgctga aactggaagg tgatgaccgt ctgacatga actgcacgt gcccttcagt  
2880  
gaccagggtg tgttggtggg caccgaggaa gggctctacg ccctgaatgt cttgaaaaac  
2940  
tccctaacc atgtcccagg aattggagca gtcttccaaa tttatattat caaggacctg  
3000  
gagaagctac tcatgatagc aggagaagag cgggcactgt gtcttggtga cgtgaagaaa  
3060  
gtgaaacagt cctggccca gtcccactg cctgcccagc cgcacatctc acccaacatt  
3120  
tttgaagctg tcaaggctg ccacttgttt ggggcaggca agattgagaa cgggctctgc  
3180  
atctgtgcag ccatgcccag caaagtcgtc attctccgct acaacgaaaa cctcagcaaa  
3240  
tactgcatcc ggaaagagat agagacctca gagccctgca gctgtatcca cttaccaat  
3300  
tacagtatcc tcattggaac caataaattc tacgaaatcg acatgaagca gtacacgctc  
3360  
gaggaattcc tggataagaa tgaccattcc ttggcacctg ctgtgtttgc cgcctcttcc  
3420  
aacagcttcc ctgtctcaat cgtgcagggt aacagcgag ggcagcgaga ggagtacttg  
3480  
ctgtgtttcc acgaatttgg agtggtcgtg gattcttacg gaagacgtag ccgcacagac  
3540  
gatctcaagt ggagtcgctt acctttggcc ttgctctaca gagaacccta tctgtttgtg  
3600  
accacttca actcactcga agtaattgag atccaggcac gctcctcagc agggacccct  
3660  
gcccagagct acctggacat ccggaacccg cgtacactgg gccctgcat ttcctcagga  
3720  
gcgatttact tggcgtcctc ataccaggat aaattaagggt tcatttgctg caagggaaac  
3780  
ctcgtgaagg agtcggcac tgaacaccac cggggcccg ccacctccg cagcagcccc  
3840  
aacaagcgag gccaccac gtacaacgag cacatcacca agcgcgtggc ctccagccca  
3900  
gcgcccggc aagggcccg ccaccgcga gagccaagca caccaccg ctaccgcgag  
3960  
gggcccggc agctgcgag ggacaagtct cctggccgce ccctggagcg agagaagtcc  
4020  
cccggccgga tgctcagcac gcggagagag cgtcccccg ggaggtgtt tgaagacagc  
4080  
agcaggggccc ggctgcctgc gggagccgtg aggacccgc tgtcccagggt gaacaaggtc  
4140  
tgggaccagt cttcagtata aatctcagcc agaaaaacca actcctcatc ttgatctgca  
4200

ggaaaaacacc aaacacacta tggaaactctg ctgatgggga cccaagcgcc cactgtctca  
4260  
gccaccctct ggctcagcgg ggcccagacc cacctcggca cggacacccc tgtctccagg  
4320  
aggggcaggt ggctgaggct cttcggagct gtcagcgccc ggtgcctgcc ctgggcacct  
4380  
ccctgcagtc atctctttgc actttgttac tctttcaaag cattacaaa cttttgtacc  
4440  
tagctctagc ctgtaccagt tagttcatca aaggaaacca accgggatgc taactacaac  
4500  
atgggttagaa tcctaattag ctactttaag atcctaggat tgggtgggtt tctttttttt  
4560  
tttctctttg tttcttttct tttttttttt tttttttaag acaacagaat tcttaataga  
4620  
tttgaatagc gacgtatttc ctgtttagt catttttagc tcgaccacat catcaggctc  
4680  
ttgccaccga ggcatagtgt agaacagtcc cggtcagttg gccaacctcc cgcagccaag  
4740  
taggttcctc cttgttcctg ttcattctca tagatggccc tgctttcccc agggtgacat  
4800  
cgtagccaaa tgtttactgt tttcattgcc ttttatggcc ttgacgactt cccctccac  
4860  
cagctgagaa tgtatggagg tcatcggggc ctcagctcgg aggcagtgac ttggggccaa  
4920  
gggacctcga gacgttttcc ttccccacc cccagcgtca tctccccagc ctgctgttcc  
4980  
cgctttccat atagctttgg ccaggaaagc atgcaataga ctgtctcgga gccagcact  
5040  
cctgggtctc ggggtcgggg aggggacggg ggacccact tccttgtctg tgacggcgtg  
5100  
ttgttcccc ctctgggatg gggaagaggc cgtcgggag ttctgcatgg cagttcactg  
5160  
catgtgctgc ccccttgggt tgccttgcca atgtattaat accatcccat agctcctgcc  
5220  
aaatcgagac cctctgacga cttgccgact aactggccac cacaagctgc agtctgtagc  
5280  
actgaacaaa caaaaaacaa aacgctcaag ctttacgacc agagaaggat ttcagcaaac  
5340  
caccacctcc cactcagtgt cccctccaaa cttcacactt ccctgcctgc agaggatgac  
5400  
tctgttcaca cccaatccag cgcgggttcta cccacgaaa ctgtgacttt ccaaatgagc  
5460  
ctttccctag ggctagacct aagaccagga agtttgagag agcagccgca gctcaactct  
5520  
tccagctccg ccagggttgg gaagtcctta ggtgcagtgc ggctccact gggctctgcg  
5580  
gacctccta ttagagtacg aaattcctgg caactggtat agaaccaacc tagaggcttt  
5640  
gcagttggca agctaactcg cggccttatt tctgccttta atctcccaca aggcactctgt  
5700  
tgctttgggt cctccacgac tcttaggccc gcctcaacaa cccaggcacc tcctaggtag  
5760  
gctcaaagg agaccggtt ccaccgcagc aggtgaacat gaccgtgttt tcaactgtgt  
5820

ccacagttca gatccctttc cagattgcaa cctggcctgc atcccagctc cttcctgctc  
 5880  
 gtgtcttaac ctaagtgcct tcttgtttga aacgcctaca aacctccatg tggtagctcc  
 5940  
 tttggcaaat gtcctgctgt ggcgttttat gtgttgcttg gagtctgtgg ggtcgtactc  
 6000  
 cctccctccc cgtccccagg gcagatttga ttgaatgttt gctgaagttt tgtctcttgg  
 6060  
 tccacagtat ttggaaaggc cactgaaaat gggctcttca gtcttgccat ttcatttagg  
 6120  
 atctccatga gaaatgggct tcttgagccc tgaaaatgta tattgtgtgt ctcatctgtg  
 6180  
 aactgctttc tgctatatag aactagctca aaagactgta catatttaca agaaacttta  
 6240  
 tattcgtaaa aaaaaaaga ggaaattgaa ttggtttcta cttttttatt gtaaaagggtg  
 6300  
 catttttcaa cacttacttt tggtttcaat ggtggtagt gtggacagcc atcttctactg  
 6360  
 gaggggtggg agctccgtgt gaccaccaag atgccagcag gatataccgt aacacgaaat  
 6420  
 tgctgtcaaa agcttatttag catcaatcaa gattctaggt ctccaaaagt acaggctttt  
 6480  
 tcttcattac cttttttatt cagaacgagg aagagaacac aaggaatgat tcaagatcca  
 6540  
 ccttgagagg aatgaacttt gttgttgaac aattagttaa ataaagcaat gatctaaact  
 6600  
 aaaaaaaaa  
 6609

<210> 6246  
 <211> 1286  
 <212> PRT  
 <213> Homo sapiens

<400> 6246  
 Val Leu Asp Asn Gln Ile Lys Lys Asp Leu Ala Asp Lys Glu Thr Leu  
 1 5 10 15  
 Glu Asn Met Met Gln Arg His Glu Glu Glu Ala His Glu Lys Gly Lys  
 20 25 30  
 Ile Leu Ser Glu Gln Lys Ala Met Ile Asn Ala Met Asp Ser Lys Ile  
 35 40 45  
 Arg Ser Leu Glu Gln Arg Ile Val Glu Leu Ser Glu Ala Asn Lys Leu  
 50 55 60  
 Ala Ala Asn Ser Ser Leu Phe Thr Gln Arg Asn Met Lys Ala Gln Glu  
 65 70 75 80  
 Glu Met Ile Ser Glu Leu Arg Gln Gln Lys Phe Tyr Leu Glu Thr Gln  
 85 90 95  
 Ala Gly Lys Leu Glu Ala Gln Asn Arg Lys Leu Glu Glu Gln Leu Glu  
 100 105 110  
 Lys Ile Ser His Gln Asp His Ser Asp Lys Asn Arg Leu Leu Glu Leu  
 115 120 125  
 Glu Thr Arg Leu Arg Glu Val Ser Leu Glu His Glu Glu Gln Lys Leu  
 130 135 140  
 Glu Leu Lys Arg Gln Leu Thr Glu Leu Gln Leu Ser Leu Gln Glu Arg

145		150		155		160
Glu Ser Gln Leu Thr	Ala Leu Gln Ala	Ala Arg Ala Ala	Leu Glu Ser			
	165	170	175			
Gln Leu Arg Gln Ala	Lys Thr Glu Leu Glu	Glu Thr Thr	Ala Glu Ala			
	180	185	190			
Glu Glu Glu Ile Gln	Ala Leu Thr Ala	His Arg Asp	Glu Ile Gln Arg			
	195	200	205			
Lys Phe Asp Ala Leu	Arg Asn Ser Cys Thr	Val Ile Thr	Asp Leu Glu			
	210	215	220			
Glu Gln Leu Asn Gln	Leu Thr Glu Asp	Asn Ala Glu	Leu Asn Asn Gln			
	225	230	235			240
Asn Phe Tyr Leu Ser	Lys Gln Leu Asp	Glu Ala Ser	Gly Ala Asn Asp			
	245	250	255			
Glu Ile Val Gln Leu	Arg Ser Glu Val	Asp His Leu	Arg Arg Glu Ile			
	260	265	270			
Thr Glu Arg Glu Met	Gln Leu Thr Ser	Gln Lys Gln	Thr Met Glu Ala			
	275	280	285			
Leu Lys Thr Thr Cys	Thr Met Leu Glu	Glu Gln Val	Met Asp Leu Glu			
	290	295	300			
Ala Leu Asn Asp Glu	Leu Leu Glu Lys	Glu Arg Gln	Trp Glu Ala Trp			
	305	310	315			320
Arg Ser Val Leu Gly	Asp Glu Lys Ser	Gln Phe Glu	Cys Arg Val Arg			
	325	330	335			
Glu Leu Gln Arg Met	Leu Asp Thr Glu	Lys Gln Ser	Arg Ala Arg Ala			
	340	345	350			
Asp Gln Arg Ile Thr	Glu Ser Arg Gln	Val Val Glu	Leu Ala Val Lys			
	355	360	365			
Glu His Lys Ala Glu	Ile Leu Ala Leu	Gln Gln Ala	Leu Lys Glu Gln			
	370	375	380			
Lys Leu Lys Ala Glu	Ser Leu Ser Asp	Lys Leu Asn	Asp Leu Glu Lys			
	385	390	395			400
Lys His Ala Met Leu	Glu Met Asn Ala	Arg Ser Leu	Gln Gln Lys Leu			
	405	410	415			
Glu Thr Glu Arg Glu	Leu Lys Gln Arg	Leu Leu Glu	Gln Ala Lys			
	420	425	430			
Leu Gln Gln Gln Met	Asp Leu Gln Lys	Asn His Ile	Phe Arg Leu Thr			
	435	440	445			
Gln Gly Leu Gln Glu	Ala Leu Asp Arg	Ala Asp Leu	Leu Lys Thr Glu			
	450	455	460			
Arg Ser Asp Leu Glu	Tyr Gln Leu Glu	Asn Ile Gln	Val Leu Tyr Ser			
	465	470	475			480
His Glu Lys Val Lys	Met Glu Gly Thr	Ile Ser Gln	Gln Thr Lys Leu			
	485	490	495			
Ile Asp Phe Leu Gln	Ala Lys Met Asp	Gln Pro Ala	Lys Lys Lys			
	500	505	510			
Val Pro Leu Gln Tyr	Asn Glu Leu Lys	Leu Ala Leu	Glu Lys Glu Lys			
	515	520	525			
Ala Arg Cys Ala Glu	Leu Glu Ala Leu	Gln Lys Thr	Arg Ile Glu			
	530	535	540			
Leu Arg Ser Ala Arg	Glu Glu Ala Ala	His Arg Lys	Ala Thr Asp His			
	545	550	555			560
Pro His Pro Ser Thr	Pro Ala Thr Ala	Arg Gln Gln	Ile Ala Met Ser			
	565	570	575			
Ala Ile Val Arg Ser	Pro Glu His Gln	Pro Ser Ala	Met Ser Leu Leu			

	580		585		590										
Ala	Pro	Pro	Ser	Ser	Arg	Arg	Lys	Glu	Ser	Ser	Thr	Pro	Glu	Glu	Phe
	595						600					605			
Ser	Arg	Arg	Leu	Lys	Glu	Arg	Met	His	His	Asn	Ile	Pro	His	Arg	Phe
	610					615					620				
Asn	Val	Gly	Leu	Asn	Met	Arg	Ala	Thr	Lys	Cys	Ala	Val	Cys	Leu	Asp
	625				630					635					640
Thr	Val	His	Phe	Gly	Arg	Gln	Ala	Ser	Lys	Cys	Leu	Glu	Cys	Gln	Val
			645						650					655	
Met	Cys	His	Pro	Lys	Cys	Ser	Thr	Cys	Leu	Pro	Ala	Thr	Cys	Gly	Leu
	660						665					670			
Pro	Ala	Glu	Tyr	Ala	Thr	His	Phe	Thr	Glu	Ala	Phe	Cys	Arg	Asp	Lys
	675						680					685			
Met	Asn	Ser	Pro	Gly	Leu	Gln	Thr	Lys	Glu	Pro	Ser	Ser	Ser	Leu	His
	690					695					700				
Leu	Glu	Gly	Trp	Met	Lys	Val	Pro	Arg	Asn	Asn	Lys	Arg	Gly	Gln	Gln
	705				710					715					720
Gly	Trp	Asp	Arg	Lys	Tyr	Ile	Val	Leu	Glu	Gly	Ser	Lys	Val	Leu	Ile
			725						730					735	
Tyr	Asp	Asn	Glu	Ala	Arg	Glu	Ala	Gly	Gln	Arg	Pro	Val	Glu	Glu	Phe
	740						745					750			
Glu	Leu	Cys	Leu	Pro	Asp	Gly	Asp	Val	Ser	Ile	His	Gly	Ala	Val	Gly
	755					760					765				
Ala	Ser	Glu	Leu	Ala	Asn	Thr	Ala	Lys	Ala	Asp	Val	Pro	Tyr	Ile	Leu
	770					775					780				
Lys	Met	Glu	Ser	His	Pro	His	Thr	Thr	Cys	Trp	Pro	Gly	Arg	Thr	Leu
	785				790					795					800
Tyr	Leu	Leu	Ala	Pro	Ser	Phe	Pro	Asp	Lys	Gln	Arg	Trp	Val	Thr	Ala
			805						810					815	
Leu	Glu	Ser	Val	Val	Ala	Gly	Gly	Arg	Val	Ser	Arg	Glu	Lys	Ala	Glu
	820						825					830			
Ala	Asp	Ala	Lys	Leu	Leu	Gly	Asn	Ser	Leu	Leu	Lys	Leu	Glu	Gly	Asp
	835						840					845			
Asp	Arg	Leu	Asp	Met	Asn	Cys	Thr	Leu	Pro	Phe	Ser	Asp	Gln	Val	Val
	850					855					860				
Leu	Val	Gly	Thr	Glu	Glu	Gly	Leu	Tyr	Ala	Leu	Asn	Val	Leu	Lys	Asn
	865				870				875						880
Ser	Leu	Thr	His	Val	Pro	Gly	Ile	Gly	Ala	Val	Phe	Gln	Ile	Tyr	Ile
			885						890					895	
Ile	Lys	Asp	Leu	Glu	Lys	Leu	Leu	Met	Ile	Ala	Gly	Glu	Glu	Arg	Ala
	900						905					910			
Leu	Cys	Leu	Val	Asp	Val	Lys	Lys	Val	Lys	Gln	Ser	Leu	Ala	Gln	Ser
	915						920					925			
His	Leu	Pro	Ala	Gln	Pro	Asp	Ile	Ser	Pro	Asn	Ile	Phe	Glu	Ala	Val
	930					935					940				
Lys	Gly	Cys	His	Leu	Phe	Gly	Ala	Gly	Lys	Ile	Glu	Asn	Gly	Leu	Cys
	945				950					955					960
Ile	Cys	Ala	Ala	Met	Pro	Ser	Lys	Val	Val	Ile	Leu	Arg	Tyr	Asn	Glu
			965						970					975	
Asn	Leu	Ser	Lys	Tyr	Cys	Ile	Arg	Lys	Glu	Ile	Glu	Thr	Ser	Glu	Pro
	980						985					990			
Cys	Ser	Cys	Ile	His	Phe	Thr	Asn	Tyr	Ser	Ile	Leu	Ile	Gly	Thr	Asn
	995						1000					1005			
Lys	Phe	Tyr	Glu	Ile	Asp	Met	Lys	Gln	Tyr	Thr	Leu	Glu	Glu	Phe	Leu

1010	1015	1020
Asp Lys Asn Asp His Ser Leu Ala Pro Ala Val Phe Ala Ala Ser Ser		
1025	1030	1035
Asn Ser Phe Pro Val Ser Ile Val Gln Val Asn Ser Ala Gly Gln Arg		1040
	1045	1050
Glu Glu Tyr Leu Leu Cys Phe His Glu Phe Gly Val Phe Val Asp Ser		1055
	1060	1065
Tyr Gly Arg Arg Ser Arg Thr Asp Asp Leu Lys Trp Ser Arg Leu Pro		1070
	1075	1080
Leu Ala Phe Ala Tyr Arg Glu Pro Tyr Leu Phe Val Thr His Phe Asn		1085
	1090	1095
Ser Leu Glu Val Ile Glu Ile Gln Ala Arg Ser Ser Ala Gly Thr Pro		1100
1105	1110	1115
Ala Arg Ala Tyr Leu Asp Ile Pro Asn Pro Arg Tyr Leu Gly Pro Ala		1120
	1125	1130
Ile Ser Ser Gly Ala Ile Tyr Leu Ala Ser Ser Tyr Gln Asp Lys Leu		1135
	1140	1145
Arg Val Ile Cys Cys Lys Gly Asn Leu Val Lys Glu Ser Gly Thr Glu		1150
	1155	1160
His His Arg Gly Pro Ser Thr Ser Arg Ser Ser Pro Asn Lys Arg Gly		1165
	1170	1175
Pro Pro Thr Tyr Asn Glu His Ile Thr Lys Arg Val Ala Ser Ser Pro		1180
1185	1190	1195
Ala Pro Pro Glu Gly Pro Ser His Pro Arg Glu Pro Ser Thr Pro His		1200
	1205	1210
Arg Tyr Arg Glu Gly Arg Thr Glu Leu Arg Arg Asp Lys Ser Pro Gly		1215
	1220	1225
Arg Pro Leu Glu Arg Glu Lys Ser Pro Gly Arg Met Leu Ser Thr Arg		1230
	1235	1240
Arg Glu Arg Ser Pro Gly Arg Leu Phe Glu Asp Ser Ser Arg Gly Arg		1245
	1250	1255
Leu Pro Ala Gly Ala Val Arg Thr Pro Leu Ser Gln Val Asn Lys Val		1260
1265	1270	1275
Trp Asp Gln Ser Ser Val		1280
	1285	

<210> 6247  
 <211> 497  
 <212> DNA  
 <213> Homo sapiens

<400> 6247  
 gcggccgcag cgctgaatgg ggtggaccga cgttccttgc agcgttcaca aggctggctc  
 60  
 tagaagtgcg ggagagggcc aagaggaggg cggtggactg gcatgccctg gagcgtccca  
 120  
 aaggctgcat gggggctcctt gcccgaggagg cgcacacac agagaaacag ccggcagccg  
 180  
 gcccgacgcg cgtttctccc ggagagaaat attattcatc tgtgccagag gaaggagggg  
 240  
 caacccatgt ctatcgttat cacagaggcg agtcgaagct gcacatgtgc ttggacatag  
 300  
 ggaatgggtca gagaaaagac agaaaaaaga catcccttgg tcctggaggc agctatcaaa  
 360

tatcagagca tgctccagag gcatcccagc ctgtgagtac ggaactgctt acgcactggg  
 420  
 tttcaccacc gttgcaactc catgaaccag ttgacatggt tcttagaggg ctatttgaat  
 480  
 tgagtctata gtatttt  
 497

<210> 6248  
 <211> 142  
 <212> PRT  
 <213> Homo sapiens

<400> 6248  
 Met Gly Trp Thr Asp Val Pro Cys Ser Val His Lys Ala Gly Ser Arg  
 1 5 10 15  
 Ser Ala Gly Glu Gly Gln Glu Gly Gly Gly Leu Ala Cys Pro Gly  
 20 25 30  
 Ala Ser Gln Arg Leu His Gly Gly Pro Cys Pro Gly Gly Ala Pro Pro  
 35 40 45  
 Arg Glu Thr Ala Gly Ser Arg Pro Ala Ala Arg Ser Pro Gly Arg Glu  
 50 55 60  
 Ile Leu Phe Ile Cys Ala Arg Gly Arg Gly Asn Pro Cys Leu Ser  
 65 70 75 80  
 Leu Ser Gln Arg Arg Val Glu Ala Ala His Val Leu Gly His Arg Glu  
 85 90 95  
 Trp Ser Glu Lys Arg Gln Lys Lys Asp Ile Pro Trp Ser Trp Arg Gln  
 100 105 110  
 Leu Ser Asn Ile Arg Ala Cys Ser Arg Gly Ile Pro Ala Cys Glu Tyr  
 115 120 125  
 Gly Thr Ala Tyr Ala Leu Gly Phe Thr Thr Val Ala Thr Pro  
 130 135 140

<210> 6249  
 <211> 1217  
 <212> DNA  
 <213> Homo sapiens

<400> 6249  
 nntgagcaac aaaccgagtt ctggagaacg ccatacagctc gctgcttaaa ctggaaacaa  
 60  
 aagtctcaac ttccaacctc tttgcagcta ggagtggcca agtagcatag atctggtgaa  
 120  
 tgaactgcag gtgggaattt ctgagaaggt ttccttctta aatagaaaga ttaaaccaca  
 180  
 gggtccatta tgggtcgact tgatgggaaa gtcacatcatc tgacggccgc tgctcagggg  
 240  
 attggccaag cagctgcctt agcttttgca agagaagggtg ccaaagtcac agccacagac  
 300  
 attaatgagt ccaaacttca ggaactggaa aagtacccgg gtattcaaac tcgtgtcctt  
 360  
 gatgtcacia agaagaaaca aattgatcag tttgccaatg aagttgagag acttgatgtt  
 420  
 ctctttaatg ttgctggttt tgtccatcat ggaactgtcc tggattgtga ggagaaagac  
 480



tgggacttct cgatgaatct caatgtgctc agcatgtacc tgatgatcaa ggcatttcctt  
 540  
 cctaaaaatgc ttgctcagaa atctggcaat attatcaaca tgtcttctgt ggcttccagc  
 600  
 gtcaaaggag ttgtgaacag atgtgtgtac agcacaacca aggcagccgt gattggcctc  
 660  
 acaaaatctg tggtctcaga tttcatccag cagggcatca ggtgcaactg tgtgtgccca  
 720  
 ggaacagttg atacgccatc tctacaagaa agaatacaag ccagaggaaa tcctgaagag  
 780  
 gcacggaatg atttcttgaa gagacaaaag acgggaagat tcgcaactgc agaagaaata  
 840  
 gccatgctct gcgtgtatct ggcttctgat gaatctgctt atgtaactgg taaccctgtc  
 900  
 atcattgatg gaggtggag cttgtgattt taggatctcc atgggtggaa ggaaggcagg  
 960  
 cccttcttat ccacagtga cctggttacg aagaaaactc accaatcatc tccttctgt  
 1020  
 taatcacatg ttaatgaaaa taagctcttt ttaatgatgt cactgtttgc aagagtctga  
 1080  
 ttctttaagt atattaatct ctttgaatc tcttctgaaa tcattgtaaa gaaataaaaa  
 1140  
 tattgaactc atagcaggag aatagttttt aaaataaatc tcgatttggt agcaaaaaaa  
 1200  
 aaaaaaaaaa aaaaaaa  
 1217

&lt;210&gt; 6250

&lt;211&gt; 245

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6250

Met Gly Arg Leu Asp Gly Lys Val Ile Ile Leu Thr Ala Ala Ala Gln  
 1 5 10 15  
 Gly Ile Gly Gln Ala Ala Leu Ala Phe Ala Arg Glu Gly Ala Lys  
 20 25 30  
 Val Ile Ala Thr Asp Ile Asn Glu Ser Lys Leu Gln Glu Leu Lys  
 35 40 45  
 Tyr Pro Gly Ile Gln Thr Arg Val Leu Asp Val Thr Lys Lys Lys Gln  
 50 55 60  
 Ile Asp Gln Phe Ala Asn Glu Val Glu Arg Leu Asp Val Leu Phe Asn  
 65 70 75 80  
 Val Ala Gly Phe Val His His Gly Thr Val Leu Asp Cys Glu Glu Lys  
 85 90 95  
 Asp Trp Asp Phe Ser Met Asn Leu Asn Val Arg Ser Met Tyr Leu Met  
 100 105 110  
 Ile Lys Ala Phe Leu Pro Lys Met Leu Ala Gln Lys Ser Gly Asn Ile  
 115 120 125  
 Ile Asn Met Ser Ser Val Ala Ser Ser Val Lys Gly Val Val Asn Arg  
 130 135 140  
 Cys Val Tyr Ser Thr Thr Lys Ala Ala Val Ile Gly Leu Thr Lys Ser  
 145 150 155 160  
 Val Ala Ala Asp Phe Ile Gln Gln Gly Ile Arg Cys Asn Cys Val Cys

165					170					175					
Pro	Gly	Thr	Val	Asp	Thr	Pro	Ser	Leu	Gln	Glu	Arg	Ile	Gln	Ala	Arg
180					185					190					
Gly	Asn	Pro	Glu	Glu	Ala	Arg	Asn	Asp	Phe	Leu	Lys	Arg	Gln	Lys	Thr
195					200					205					
Gly	Arg	Phe	Ala	Thr	Ala	Glu	Ile	Ala	Met	Leu	Cys	Val	Tyr	Leu	
210					215					220					
Ala	Ser	Asp	Glu	Ser	Ala	Tyr	Val	Thr	Gly	Asn	Pro	Val	Ile	Ile	Asp
225					230					235					240
Gly	Gly	Trp	Ser	Leu											
245															

```
<210> 6251
<211> 1611
<212> DNA
<213> Homo sapiens
```

400>	6251				
tttttttttt	tttttttttt	tttttttttt	tttttttttt	ttttccagat	caggaagttt
60					
tattgctgac	atgcaggaag	agtcccatg	tagtacaaaa	atatgtcttt	atacaaaact
120					
ttttgtgact	ttttccgttt	ctttacaata	ggacttctct	cagtgtgtga	caccagtgat
180					
gggctgaccc	atcctcctct	cctttgcttc	accaggaatg	tcactagaca	catggcttga
240					
ccttggaagg	gcccatgtct	tctgacaggg	ctttgcagac	ccggcgggcta	tgtctttgaa
300					
aaggaggaga	aagaccacgc	acgggcagca	gcctggaggg	accgggtggg	ctgctgagag
360					
ggggctccgc	tgcgacgggc	cctggcccag	cttcaggccc	tcacaggagg	acagtcaagg
420					
gctgggagcc	ctaggccgga	ctgcatttcc	gctcccgcag	gagactttct	atgaaataaa
480					
tatagaaaag	agggcatccc	ccagcccac	agcacaagac	cctggccctc	agcgtggac
540					
agctgagaca	gacgcaggct	cgctgctcag	ggggagtaag	tgctggggctc	cagtaggctc
600					
ccacaggccc	actgaggcag	aggcatgagt	cgcccaagtg	ctggatgggg	catggggaga
660					
aaggggcgctg	ggcagccctg	ctactgctgg	caagaggtgg	ccccattttt	tccagatggg
720					
gaaactgagg	cacaaggagg	tttgggaact	tgcccaaggt	cactcacagt	gagtcagctt
780					
tttaggggga	ggagagcggc	tcacactctg	ggaaacacag	tcacctcccc	actggggagc
840					
agggccaggc	aggagggggc	tcagggccca	tgactgcctg	gaggggacac	tcagcctctc
900					
tgaggacata	tggggggtag	gcctctgggg	aagggtcttt	gcttggcac	aggcagggcc
960					
aagttccagta	agggcaaggg	gagggggcat	tctgggtgaga	acagcatttc	tggcaagacg
1020					
ggcatccact	tcaaaatctc	ggctcaaaa	ggcagcaggg	ctgtttctca	gccaggcagg
1080					

cagggtcccc caatccctac aattctcctg agtccctcac caccatggag gacccttgct  
 1140  
 aggggtctacc gggagagtca ccacatctat tatgaggcaa gggcactggg atatgttccc  
 1200  
 accatccccct aaacacaaga gtaggctagg ggagcgtgca ggcagcccc gctcacggcc  
 1260  
 aggcctgcag cccaacccat gggccccctc gcactgggag tccacgtgag ctccagtacca  
 1320  
 cggggaagga tagagaaggg aacaggttaa cgcgcgtgta cagcacctca gagaagccac  
 1380  
 tgagacggga gagaagagc caggctctaga aaggcctccc atcaccggca gcagagaggg  
 1440  
 actggtgggc tgaaagggga cagggactgg caggaggggc ttccctgcct gggggtgagg  
 1500  
 agggagctca cgtgtgggct gtggattcct tgctgtccag ccaggctggg ggcagggagt  
 1560  
 ggccatggac tgagccacct agagatggga gagaagttgg tatgggtaan a  
 1611

<210> 6252  
 <211> 100  
 <212> PRT  
 <213> Homo sapiens

<400> 6252  
 Met Gly Gly Arg Pro Leu Gly Lys Gly Leu Cys Leu Ala Ser Gly Arg  
 1 5 10 15  
 Ala Lys Ser Ser Lys Gly Lys Gly Arg His Ser Gly Glu Asn Ser  
 20 25 30  
 Ile Ser Gly Lys Thr Gly Ile His Phe Lys Ile Ser Ala Gln Lys Gly  
 35 40 45  
 Ser Arg Ala Val Leu Lys Pro Gly Arg Gln Gly Pro Pro Ile Pro Thr  
 50 55 60  
 Ile Leu Leu Ser Pro Ser Pro Pro Trp Arg Thr Leu Ala Arg Val Tyr  
 65 70 75 80  
 Arg Glu Ser His His Ile Tyr Tyr Glu Ala Arg Ala Leu Gly Tyr Val  
 85 90 95  
 Pro Thr Ile Pro  
 100

<210> 6253  
 <211> 1953  
 <212> DNA  
 <213> Homo sapiens

<400> 6253  
 nngtggggta gcgggcaagg cgggcgccga gtttgcaaag gctcgcagcg gccagaaacc  
 60  
 cggctccgag cggcgggcgc ccggcttccg ctgcccgtga gctaaggacg gtccgctccc  
 120  
 tctagccagc tccgaatcct gatccaggcg ggggccaggg gcccctcgcc tcccctctga  
 180  
 ggaccgaaga tgagcttcct cttcagcagc cgctcttcta aaacattcaa accaaagaag  
 240

aatatccctg aaggatctca tcagtatgaa ctcttaaaac atgcagaagc aactctagga  
300  
agtgggaatc tgagacaagc tgttatgttg cctgagggag aggatctcaa tgaatggatt  
360  
gctgtgaaca ctgtggattt cttaaccag atcaacatgt tatatggaac tattacagaa  
420  
ttctgcactg aagcaagctg tccagtcatt tctgcaggtc cgagatatga atatcactgg  
480  
gcagatggta ctaatatata aaagccaatc aaatgttctg caccaaaata cattgactat  
540  
ttgatgactt gggttcaaga tcagcttgat gatgaaactc tttttccttc taagattggt  
600  
gtcccatctc ccaaaaactt tatgtctgtg gcaaagacta ttctaaagcg tctgttcagg  
660  
gtttatgccc atatttatca ccagcacttt gattctgtga tgcagctgca agaggaggcc  
720  
cacctcaaca cctcctttaa gcactttatt ttctttgttc aggagttaa tctgattgat  
780  
aggcgtgagc tggcacctct tcaagaatta atagagaaac ttggatcaaa agacagataa  
840  
atgtttcttc tagaacacag ttacccctct gcttcattca ttgctagaac tatctcattg  
900  
ctatctgtta tagactagtg atacaaactt taagaaaaa ggataaaaag ataccattg  
960  
cctgtgtcta ctgataaaat tatcccaaag gtaggttggg gtgatagttt ccgagtaaga  
1020  
ccttaaggac acagccaat cttaagtact gtgtgaccac tcttgttgtt atcacatagt  
1080  
catacttggg tgtaatatgt gatgggtaac ctgtagctta taaatttact tattattctt  
1140  
ttactcattt actcagtcatt ttctttacaa gaaaatgatt gaactctgtt taggtgacag  
1200  
cacaatggac attaagaatt tccatcaata atttatgaat aagtttccag aacaaatttc  
1260  
ctaataaac aatcagattg gttttattct ttatttttac gaataaaaaa tgtatttttc  
1320  
agtacccttg agatttagaa catctgtgtc acttcagata acattttagt ttcaagtttg  
1380  
tatggtagtg tttttataga taagatacgt ctattttttc aaaattcatg attgcagttt  
1440  
aaatcatcat atgacgtgtg ggtgggagca accaaagtta tttttacagg gactttattt  
1500  
tttgatcttt atttgagatt gttttcatat ctatctaaat tattaggagt gtgtgtatca  
1560  
gaagtaattt tttaatgtct tctaaggatg gtcttccagg cttttaaact gaaaagctta  
1620  
attcagatag tagcttttgg ctgagaaaag gaatccaaa tattaataaa tttagatctc  
1680  
aaaaccacta tttttattat ttcatattt ttccagaggcc ttaaaattct gggtagaga  
1740  
atggaggaaa atactcagag tacttgatta ttttatttcc ttttattaaa aaattacttc  
1800  
tatgttttta ttgtctcttg agccttagtt aagagtagtg tagaaatgca tgaacttcatt  
1860

cctaataagg ataaaactta aggaaaacca caataaacca tgaagggtga cacatcttaa  
 1920  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaa  
 1953

<210> 6254  
 <211> 216  
 <212> PRT  
 <213> Homo sapiens

<400> 6254  
 Met Ser Phe Leu Phe Ser Ser Arg Ser Ser Lys Thr Phe Lys Pro Lys  
 1 5 10 15  
 Lys Asn Ile Pro Glu Gly Ser His Gln Tyr Glu Leu Leu Lys His Ala  
 20 25 30  
 Glu Ala Thr Leu Gly Ser Gly Asn Leu Arg Gln Ala Val Met Leu Pro  
 35 40 45  
 Glu Gly Glu Asp Leu Asn Glu Trp Ile Ala Val Asn Thr Val Asp Phe  
 50 55 60  
 Phe Asn Gln Ile Asn Met Leu Tyr Gly Thr Ile Thr Glu Phe Cys Thr  
 65 70 75 80  
 Glu Ala Ser Cys Pro Val Met Ser Ala Gly Pro Arg Tyr Glu Tyr His  
 85 90 95  
 Trp Ala Asp Gly Thr Asn Ile Lys Lys Pro Ile Lys Cys Ser Ala Pro  
 100 105 110  
 Lys Tyr Ile Asp Tyr Leu Met Thr Trp Val Gln Asp Gln Leu Asp Asp  
 115 120 125  
 Glu Thr Leu Phe Pro Ser Lys Ile Gly Val Pro Phe Pro Lys Asn Phe  
 130 135 140  
 Met Ser Val Ala Lys Thr Ile Leu Lys Arg Leu Phe Arg Val Tyr Ala  
 145 150 155 160  
 His Ile Tyr His Gln His Phe Asp Ser Val Met Gln Leu Gln Glu Glu  
 165 170 175  
 Ala His Leu Asn Thr Ser Phe Lys His Phe Ile Phe Phe Val Gln Glu  
 180 185 190  
 Phe Asn Leu Ile Asp Arg Arg Glu Leu Ala Pro Leu Gln Glu Leu Ile  
 195 200 205  
 Glu Lys Leu Gly Ser Lys Asp Arg  
 210 215

<210> 6255  
 <211> 622  
 <212> DNA  
 <213> Homo sapiens

<400> 6255  
 nntccggagg ctgagacagg agaatcgctt gaaccacagga ggccgagggtt gcagtgcagcc  
 60  
 gagatcatgc cattgcactc cagcctgggc aacagagtga gacttcattc caaaaaaaaa  
 120  
 aaagccacag tggetgcctt cacagccagc gagggccacg cacatcccag ggtagtggag  
 180  
 ctaccaaga cggatgaggg cctaggcttc aacatcatgg gtggcaaaga gcaaaactcg  
 240

cccatctaca tctcccgggt catcccaggg ggtgtggctg accgccatgg aggcctcaag  
 300  
 cgtggggatc aactgttgtc ggtgaacggt gtgagcgttg agggtgagca gcatgagaag  
 360  
 gcgggtggagc tgctgaaggc ggcccagggc tcggtgaagc tggttgtccg ttacacaccg  
 420  
 cgagtgtcgg aggagatgga ggcccgggtc gagaagatgc gctctgcccg ccggcgccaa  
 480  
 cagcatcaga gctactcgtc cttggagtct cgagggtgaa accacagatc tggacgttca  
 540  
 cgtgcactct ctctcgttac agtattttatt gttcctggca ctttatttaa agatttttga  
 600  
 ccctcaaaaa aaaaaaaaaa aa  
 622

<210> 6256  
 <211> 150  
 <212> PRT  
 <213> Homo sapiens

<400> 6256  
 Met Pro Leu His Ser Ser Leu Gly Asn Arg Val Arg Leu His Leu Lys  
 1 5 10 15  
 Lys Lys Lys Ala Thr Val Ala Ala Phe Thr Ala Ser Glu Gly His Ala  
 20 25 30  
 His Pro Arg Val Val Glu Leu Pro Lys Thr Asp Glu Gly Leu Gly Phe  
 35 40 45  
 Asn Ile Met Gly Gly Lys Glu Gln Asn Ser Pro Ile Tyr Ile Ser Arg  
 50 55 60  
 Val Ile Pro Gly Gly Val Ala Asp Arg His Gly Gly Leu Lys Arg Gly  
 65 70 75 80  
 Asp Gln Leu Leu Ser Val Asn Gly Val Ser Val Glu Gly Glu Gln His  
 85 90 95  
 Glu Lys Ala Val Glu Leu Leu Lys Ala Ala Gln Gly Ser Val Lys Leu  
 100 105 110  
 Val Val Arg Tyr Thr Pro Arg Val Leu Glu Glu Met Glu Ala Arg Phe  
 115 120 125  
 Glu Lys Met Arg Ser Ala Arg Arg Gln Gln His Gln Ser Tyr Ser  
 130 135 140  
 Ser Leu Glu Ser Arg Gly  
 145 150

<210> 6257  
 <211> 2216  
 <212> DNA  
 <213> Homo sapiens

<400> 6257  
 nttttttttt tttttttttt ttttttctc agcaatcttt attcagttct tcttgggggt  
 60  
 gggatgcctc ctttcccatg ctcccacccc tcccatccca gaactccgtt gggctcagtg  
 120  
 tcctctgttg agggaaggtc ttggtgccca gatgcctact ctgcaggaga gggaggaacc  
 180

ttgtcccttt gcgggagtcg ctggtctctt ctgttggtgg gaagaaggaa ggtgggaggg  
240  
gcactgtcca ccagcactca gagctccatt atgtccccag ctgggggttc agggtagggg  
300  
ggactggggg tgtccccag cctcagcaga cggagggcct cagggatgag gctgccagga  
360  
tagcgccaga gaagcagctc agagcaaggg ctcttgagtg ggggcagggc tggggagaag  
420  
gtcatggggg ggctgcagta ggggtggtca ttgtgcaggc tgagttgaga gaagtgggtg  
480  
gccatgttct cctcagacag aaactgcttg cgcagaggct cctgctcttc ctccaggcgc  
540  
cgcttggtgc tcatgggcac agctcctcgg agaggggagc tggcgtccag gcccgaagtc  
600  
acccccaaag cggcccgcgg gaggcgctgg gcccctccct gggggcctcg ctgcaagggc  
660  
tgctgcagga tcattgggtt ttgggtcct gcgggtggga tctgggcgac aggggaggag  
720  
tctctgaggg cgtggccaag agaggatggg cgtggcttta ggcgggcaca gccgcgaggt  
780  
tctgcgctgg cgcggaagac gggcggcgcg tggcggaagg caggcttgct cctcggggcg  
840  
gggggaggta tccggcttaa gggggctgcg gtggacacca cttcttaatg tgggggtct  
900  
tcgcgcgct cactcggt cctagggttc gggacggta caccagcca cttcgcgc  
960  
gaagcggtg gggcgccacg gagaggaaac gctctaggca cgtaaggcct cgtgaggtg  
1020  
cgtcgcgcg ggagcactct gggacttgta gttctggaga tggagcgagc tgtgcgcctc  
1080  
gcggtgcctc tgggtcagac agaggtgttc caggccttgc agcggtcca tatgaccatc  
1140  
ttctcccaga gcgtctcacc atgtgggaag tttctggcgg ctggcaacaa ttacgggcag  
1200  
attgccatct tcagcttgtc ctctgctttg agctcagaag ccaaaggga aagtaagaag  
1260  
ccggtgggtg ctttccaagc ccagatggg ccgctctata gcatgggttc caccgatcga  
1320  
catctgctta gtgctgggga tggggaggtg aaggcctggc tttggcgga gatgctcaag  
1380  
aagggtgta aggagctgtg gcgtcgtcag cctccataca ggaccagcct ggaagtgcct  
1440  
gagatcaacg ctttgctgct ggtcccaag gagaattccc tcatcctggc tgggggagac  
1500  
tgtcagttgc acactatgga ccttgaaact gggactttca cgagggtcct ccggggccac  
1560  
acagactaca tccactgcct ggcactgcgg gaaaggagcc cagaggtgct gtcaggtggc  
1620  
gaggatggag ctgttcgact ttgggacctg cgcacagcca aggaggtcca gacgatcgag  
1680  
tctataagca cgaggagtgc tcgaggcccc acaatgggcy ctggattgga tgtttggact  
1740  
gattccgact ggatgggtctg tggagggggc ccagccctca ccctctggca cctccgatcc  
1800

tccacaccca ccaccatctt ccccatccgg gcgccacaga agcacgtcac cttctaccag  
1860  
gacctgattc tgtcagctgg ccaggggccgc tgcgtcaacc agtggcagct gagcggggag  
1920  
ctgaaggccc aggtgcctgg ctccctcccca gggctgctca gcctcagcct caaccagcag  
1980  
cctgccgcgc ctgagtgcga ggtcctgaca gctgcaggca acagctgccg ggtggatgtc  
2040  
ttcaccaacc tgggttaccg agccttctcc ctgtccttct gatctctgac gacaccccca  
2100  
gccagctcag ggttttagag tgtttttcat tttctttttt tttttttttt tacaataaag  
2160  
tttcaggctt tttaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaa  
2216

<210> 6258

<211> 340

<212> PRT

<213> Homo sapiens

<400> 6258

Met	Glu	Arg	Ala	Val	Pro	Leu	Ala	Val	Pro	Leu	Gly	Gln	Thr	Glu	Val
1			5					10					15		
Phe	Gln	Ala	Leu	Gln	Arg	Leu	His	Met	Thr	Ile	Phe	Ser	Gln	Ser	Val
		20					25					30			
Ser	Pro	Cys	Gly	Lys	Phe	Leu	Ala	Ala	Gly	Asn	Asn	Tyr	Gly	Gln	Ile
		35				40						45			
Ala	Ile	Phe	Ser	Leu	Ser	Ser	Ala	Leu	Ser	Ser	Glu	Ala	Lys	Glu	Glu
	50				55			60							
Ser	Lys	Lys	Pro	Val	Val	Thr	Phe	Gln	Ala	His	Asp	Gly	Pro	Val	Tyr
65				70				75				80			
Ser	Met	Val	Ser	Thr	Asp	Arg	His	Leu	Leu	Ser	Ala	Gly	Asp	Gly	Glu
			85					90				95			
Val	Lys	Ala	Trp	Leu	Trp	Ala	Glu	Met	Leu	Lys	Lys	Gly	Cys	Lys	Glu
		100					105					110			
Leu	Trp	Arg	Arg	Gln	Pro	Pro	Tyr	Arg	Thr	Ser	Leu	Glu	Val	Pro	Glu
		115					120					125			
Ile	Asn	Ala	Leu	Leu	Leu	Val	Pro	Lys	Glu	Asn	Ser	Leu	Ile	Leu	Ala
	130					135					140				
Gly	Gly	Asp	Cys	Gln	Leu	His	Thr	Met	Asp	Leu	Glu	Thr	Gly	Thr	Phe
145				150				155				160			
Thr	Arg	Val	Leu	Arg	Gly	His	Thr	Asp	Tyr	Ile	His	Cys	Leu	Ala	Leu
			165					170				175			
Arg	Glu	Arg	Ser	Pro	Glu	Val	Leu	Ser	Gly	Gly	Glu	Asp	Gly	Ala	Val
		180					185					190			
Arg	Leu	Trp	Asp	Leu	Arg	Thr	Ala	Lys	Glu	Val	Gln	Thr	Ile	Glu	Ser
		195					200					205			
Ile	Ser	Thr	Arg	Ser	Ala	Arg	Gly	Pro	Thr	Met	Gly	Ala	Gly	Leu	Asp
	210					215					220				
Val	Trp	Thr	Asp	Ser	Asp	Trp	Met	Val	Cys	Gly	Gly	Gly	Pro	Ala	Leu
225				230				235					240		
Thr	Leu	Trp	His	Leu	Arg	Ser	Ser	Thr	Pro	Thr	Thr	Ile	Phe	Pro	Ile
			245					250				255			
Arg	Ala	Pro	Gln	Lys	His	Val	Thr	Phe	Tyr	Gln	Asp	Leu	Ile	Leu	Ser



```

                260                265                270
Ala Gly Gln Gly Arg Cys Val Asn Gln Trp Gln Leu Ser Gly Glu Leu
                275                280                285
Lys Ala Gln Val Pro Gly Ser Ser Pro Gly Leu Leu Ser Leu Ser Leu
                290                295                300
Asn Gln Gln Pro Ala Ala Pro Glu Cys Lys Val Leu Thr Ala Ala Gly
305                310                315                320
Asn Ser Cys Arg Val Asp Val Phe Thr Asn Leu Gly Tyr Arg Ala Phe
                325                330                335
Ser Leu Ser Phe
                340

```

<210> 6259  
 <211> 384  
 <212> DNA  
 <213> Homo sapiens

```

<400> 6259
ccatgcagcg atcccataga acacagctca gagtctgata acagtgtcct tgaaattcca
60
gatgctttcg atagaacaga gaacatgtta tctatgcaga aaaatgaaaa gataaagtat
120
tctagggttg ctgccacaaa cactagggtta aaagcaaaac agaagcctct cattagtaac
180
tcacatacag accacttaat gggttgtact aagagtgcag agcctggaac cgagacgtct
240
caggtaatt ccttctctga tctgaaggca tctactcttg ttcacaaacc ccagtcagat
300
ttacaaatg atgctctctc tccaaaattc aacctgtcat caagcatatc cagtgagaac
360
tcgttaataa aggggtggggc agca
384

```

<210> 6260  
 <211> 128  
 <212> PRT  
 <213> Homo sapiens

```

<400> 6260
Pro Cys Ser Asp Pro Ile Glu His Ser Ser Glu Ser Asp Asn Ser Val
1          5          10          15
Leu Glu Ile Pro Asp Ala Phe Asp Arg Thr Glu Asn Met Leu Ser Met
20          25          30
Gln Lys Asn Glu Lys Ile Lys Tyr Ser Arg Phe Ala Ala Thr Asn Thr
35          40          45
Arg Val Lys Ala Lys Gln Lys Pro Leu Ile Ser Asn Ser His Thr Asp
50          55          60
His Leu Met Gly Cys Thr Lys Ser Ala Glu Pro Gly Thr Glu Thr Ser
65          70          75          80
Gln Val Asn Ser Phe Ser Asp Leu Lys Ala Ser Thr Leu Val His Lys
85          90          95
Pro Gln Ser Asp Phe Thr Asn Asp Ala Leu Ser Pro Lys Phe Asn Leu
100         105         110
Ser Ser Ser Ile Ser Ser Glu Asn Ser Leu Ile Lys Gly Gly Ala Ala

```

115 120 125

<210> 6261  
 <211> 3619  
 <212> DNA  
 <213> Homo sapiens

<400> 6261  
 ntccctgcag gctctgctc gggaaagccg ctcatctctcgt cttccccctc cctttcccgg  
 60  
 ctcaagtctc tccctctctc ttcctttctt tccgcctatc ttttttctgc tgcgctccg  
 120  
 ggtccggggc attttccggg ccgggcgcac taagggtgcg gcccccggg cccagtatat  
 180  
 gaccgcgcgt cctgctatcc ttcgcttccc ccgccccatg tggctgcggg gccgcggcgg  
 240  
 cgctgcccac tatggcccgg aaagtagtta gcaggaagcg gaaagcgccc gcctcgccgg  
 300  
 gagctgggag cgacgctcat gggcccgag tttggctggg atcactcgct tcacaaaagg  
 360  
 aaaaagactc ctcctgtgaa gagatcctta gtatactact tgaagaaccg ggaagtcagg  
 420  
 ctacagaatg aaaccagcta ctctcgagtg ttgcatggtt atgcagcaca gcaacttccc  
 480  
 agtctcctga aggagagaga gtttcacctt gggaccctta ataaagtgtt tgcattctcag  
 540  
 tgggtgaatc ataggcaagt ggtgtgtggc acaaaatgca acacgctatt tgtcgtagat  
 600  
 gtccagacaa gccagatcac caagatcccc attctgaaag accggggagcc tggaggtgtg  
 660  
 acccagcagg gctgtggtat ccattgccatc gagctgaatc cttctagaac actgctagcc  
 720  
 actggaggag acaaccccaa cagtcttgcc atctatcgac tacctacgct ggatcctgtg  
 780  
 tgtgtaggag atgatggaca caaggactgg atctttttcca tcgcatggat cagcgacact  
 840  
 atggcagtg ctggctcacg tgatggttct atgggactct gggagggtgac agatgatgtt  
 900  
 ttgacaaaa gtgatgcgag acacaatgtg tcacgggtcc ctgtgtatgc acacatcact  
 960  
 cacaaggcct taaaggacat ccccaaagaa gacacaaacc ctgacaactg caagggtcgg  
 1020  
 gctctggcct tcaacaacaa gaacaaggaa ctgggagcag tgtctctgga tggctacttt  
 1080  
 catctctgga aggctgaaaa tacactatct aagctcctct ccaccaaact gccatattgc  
 1140  
 cgtgagaatg tgtgtctggc ttatggtagt gaatggtcag tttatgcagt gggctcccaa  
 1200  
 gctcatgtct ctttcttggg tccacggcag ccatcataca acgtcaagtc tgtctgttcc  
 1260  
 agggagcgag gcagtggaat ccggtcagtg agtttctacg agcacatcat cactgtggga  
 1320  
 acagggcagg gctccctgct gttctatgac atccgagctc agagatttct ggaagagagg  
 1380

ctctcagctt gttatgggtc caagcccaga ctagcagggg agaatctgaa actaaccact  
1440  
ggcaaaggct ggctgaatca tgatgaaacc tggaggaatt acttttcaga cattgacttc  
1500  
ttccccaatg ctgtttacac ccaactgtac gactcgtctg gaacgaaact ctttggtgca  
1560  
ggaggtcccc tcccttcagg gctccatgga aactatgctg ggctctggag ttaatgacaa  
1620  
ctccccaat gcagagattt acactaactt ccattctcag tttccttgtt tcttttgatt  
1680  
ttttttttcc taattgtgtg aggctcttgt gtttttagtg gaacaccaa gtttgcctat  
1740  
agtttaggca cttaatagga agaagctctg tacagaaatc tgaagttgt tttgctttt  
1800  
gttttcccc ttggtaatca aaattttact atcttttatt atttctggct tttcaaccaa  
1860  
acattgttgc taatccctat ttttctttaa gtgacacaca ttctcctgtc tctggcttct  
1920  
tcaggctgaa atgacatagt ctttctcacc cttacttcac tcttgagagg tagggctcct  
1980  
ttataattac atgggtgtgc tcagactttc tgtgaaagt tgggagctgt gtgtgtctgt  
2040  
gtgtgtgtga gagagagatc ttgtctgctg gtgtgtgtgt gatcttgtgt gcctgtaggt  
2100  
actgtgtgtc actgaaatta cctggagtga ggattacttg taattaaaat atttataaaa  
2160  
gaaacaactt tatttcacaga gtccagcttt gggactagtc tgtatcttgt tttttaagtc  
2220  
taacaacact gataatagga agtaaaaaca gaaaggaaaa gaaattacca ctgggaaaa  
2280  
cttttttagt agattgtagg cttcctgggg cctcccatgc caggactgca aagtgatcca  
2340  
gccctacctg tcttcccacc tgtgtgtccc cgtgtggga agttggtgtc acttcccctt  
2400  
cccaccctca catctgtta gccagtagcc acaccctaa aacatcagac tcaccatcca  
2460  
ggtgcagtc cagaggctac aaaaggcttc atgggacttg aatccccatc ctagcttctc  
2520  
tctccttccc ctcaagacct gatctggttt taaggggect ggagctggga gtctcaagtc  
2580  
tgctaagatt cacatccata gccccatgg ctttgaggag aatcctctct gccattcttc  
2640  
caatctcccc agtgggtttt gctattattt tctaaattgg gttaagtcta agaagggtgg  
2700  
ggtgagcagg gggtttatct gtgtgtagtg agtgcttcat gtgtggaata ttcattttct  
2760  
tactgcagtg ggacttgggg ttgaagccac cctcctact ctgttggtt agccctgaga  
2820  
tggtgacagg ctggcctgca gtcagcatca ttgtgcatgt gacagcatca atgtgattag  
2880  
taatttgtct gttcctccct tgaactgtct gtttagtctg aggtttttaa acttgcaggc  
2940  
agctgagctg gatgtccact tgttcctga tttttacaca tcatgtcaaa gataacagct  
3000

gtccccccc accagttcct ctaagcacat actctgcttt tctgtcaaca tcccattttg  
 3060  
 gggaaaggaa aagtcattat tttcctgca cccagtttt ttaacttggt ctcccagttg  
 3120  
 tccccctctt ctctgggtgt aagaaggga attggaaaa aaattatata tatattctcc  
 3180  
 ttttaattgt ggggggctac tggagaggag agacagcaag tccaccctaa cttgttacac  
 3240  
 agcacatacc acaggttctg gaattctcat cttcgaaact agagaaatag gtgctataaa  
 3300  
 cagggaatta agcaaaatgc tggatgctat agatctttta attgtcttaa tttttttctt  
 3360  
 attattaaac tacaggctgt agatttctta gttctcacag aacttctatc attttaaact  
 3420  
 gacttgata tttaaaaaa aaatcttcag taggatgttt tgtactattg ctagaccctc  
 3480  
 ttctgtaagt ggtaatgctt ttgattgttt gagattttct gtttttaaaa atgtagcact  
 3540  
 tgactttttt ccaaggaaaa aaataaaaat tattccagtg caaaaaaaaa aaaaaaaaaa  
 3600  
 aaaaaaaaaa aaaaaaaaaa  
 3619

<210> 6262

<211> 431

<212> PRT

<213> Homo sapiens

<400> 6262

Met Gly Pro Gln Phe Gly Trp Asp His Ser Leu His Lys Arg Lys Arg  
 1 5 10 15  
 Leu Pro Pro Val Lys Arg Ser Leu Val Tyr Tyr Leu Lys Asn Arg Glu  
 20 25 30  
 Val Arg Leu Gln Asn Glu Thr Ser Tyr Ser Arg Val Leu His Gly Tyr  
 35 40 45  
 Ala Ala Gln Gln Leu Pro Ser Leu Leu Lys Glu Arg Glu Phe His Leu  
 50 55 60  
 Gly Thr Leu Asn Lys Val Phe Ala Ser Gln Trp Leu Asn His Arg Gln  
 65 70 75 80  
 Val Val Cys Gly Thr Lys Cys Asn Thr Leu Phe Val Val Asp Val Gln  
 85 90 95  
 Thr Ser Gln Ile Thr Lys Ile Pro Ile Leu Lys Asp Arg Glu Pro Gly  
 100 105 110  
 Gly Val Thr Gln Gln Gly Cys Gly Ile His Ala Ile Glu Leu Asn Pro  
 115 120 125  
 Ser Arg Thr Leu Leu Ala Thr Gly Gly Asp Asn Pro Asn Ser Leu Ala  
 130 135 140  
 Ile Tyr Arg Leu Pro Thr Leu Asp Pro Val Cys Val Gly Asp Asp Gly  
 145 150 155 160  
 His Lys Asp Trp Ile Phe Ser Ile Ala Trp Ile Ser Asp Thr Met Ala  
 165 170 175  
 Val Ser Gly Ser Arg Asp Gly Ser Met Gly Leu Trp Glu Val Thr Asp  
 180 185 190  
 Asp Val Leu Thr Lys Ser Asp Ala Arg His Asn Val Ser Arg Val Pro

195	200	205
Val Tyr Ala His Ile Thr His Lys Ala Leu Lys Asp Ile Pro Lys Glu		
210	215	220
Asp Thr Asn Pro Asp Asn Cys Lys Val Arg Ala Leu Ala Phe Asn Asn		
225	230	235
Lys Asn Lys Glu Leu Gly Ala Val Ser Leu Asp Gly Tyr Phe His Leu		
245	250	255
Trp Lys Ala Glu Asn Thr Leu Ser Lys Leu Leu Ser Thr Lys Leu Pro		
260	265	270
Tyr Cys Arg Glu Asn Val Cys Leu Ala Tyr Gly Ser Glu Trp Ser Val		
275	280	285
Tyr Ala Val Gly Ser Gln Ala His Val Ser Phe Leu Asp Pro Arg Gln		
290	295	300
Pro Ser Tyr Asn Val Lys Ser Val Cys Ser Arg Glu Arg Gly Ser Gly		
305	310	315
Ile Arg Ser Val Ser Phe Tyr Glu His Ile Ile Thr Val Gly Thr Gly		
325	330	335
Gln Gly Ser Leu Leu Phe Tyr Asp Ile Arg Ala Gln Arg Phe Leu Glu		
340	345	350
Glu Arg Leu Ser Ala Cys Tyr Gly Ser Lys Pro Arg Leu Ala Gly Glu		
355	360	365
Asn Leu Lys Leu Thr Thr Gly Lys Gly Trp Leu Asn His Asp Glu Thr		
370	375	380
Trp Arg Asn Tyr Phe Ser Asp Ile Asp Phe Phe Pro Asn Ala Val Tyr		
385	390	395
Thr His Cys Tyr Asp Ser Ser Gly Thr Lys Leu Phe Val Ala Gly Gly		
405	410	415
Pro Leu Pro Ser Gly Leu His Gly Asn Tyr Ala Gly Leu Trp Ser		
420	425	430

&lt;210&gt; 6263

&lt;211&gt; 2508

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6263

```

nnggcacgag gcaacctgcc ctcacccctgg cccgcgactg taagaccgga cccacatcca
60
gaccaatctt cctgtccggg ctgctgcgac gcgggctccg cagggttcag gcgggcggcc
120
ggggcgccctg aagggtaccg agtgcatgag cgcctagcgc ttcccgcgct gccccgccc
180
ctggcccgcc gacccgcccg ccggtctgcc cgccagcccc tcggcgcccc gcggcgccgg
240
cgggcggtggc ggcgacggtc gcaggagggtg ccgtctgcct cccaggtgcg cgcttcgctc
300
ccggagccgc ggaactcggc ggccgccatg gcgtccaaca tggaccggga gatgatcctg
360
gcggattttc aggcattgac tggcattgaa aacattgacg aagctattac attgcttgaa
420
caaaataatt gggacttagt ggcagctatc aatggtgtaa taccacagga aaatggcatt
480
ctacaaagtg aatatggagg tgagaccata ccaggacctg catttaatcc agcaagtcac
540

```

ccagcttcag ctctacttc ctctcttct tcagcgtttc gacctgtaat gccatccagg  
600  
cagattgtag aaaggcaacc tcggatgctg gacttcaggg ttgaatacag agacagaaat  
660  
gttgatgtgg tacttgaaga cacctgtact gttggagaga ttaaacagat tctagaaaat  
720  
gaacttcaga tacctgtgtc caaaatgctg ttaaaaggct ggaagacggg agatgtggaa  
780  
gacagtagcg tcctaaaatc tctacacttg ccaaaaaaca acagtcttta tgccttaca  
840  
ccagatttgc caccaccttc atcatctagt catgctggcg ccctgcagga gtcattaaat  
900  
caaaacttca tgctgatcat caccaccga gaagtccagc gggagtacaa cctgaacttc  
960  
tcaggaagca gtactattca agaggtaaag agaaatgtgt atgaccttac aagtatcccc  
1020  
gttcgccacc aattatggga gggctggcca acttctgcta cagacgactc aatgtgtctt  
1080  
gctgaatcag ggctctctta tccctgccat cgacttacag tgggaagaag atcttcacct  
1140  
gcacagaccc gggaaacagtc ggaagaacaa atcaccgatg ttcatatggt tagtgatagc  
1200  
gatggagatg actttgaaga tgctacagaa ttgggggtgg atgatggaga agtatttggc  
1260  
atggcgctcat ctgccttgag aaaatctcca atgatttgtt ttttagtgcc agaaaacgca  
1320  
gaaaatgaag gagatgcctt attacaattt acagcagagt tttcttcaag atatggtgat  
1380  
tgccatcctg tattttttat tggctcatta gaagctgctt ttcaagagcg cttctatgtg  
1440  
aaagcccag atagaaagct tcttgctatc tacctccacc atgatgaaag tgtgttaacc  
1500  
aacgtgttct gctcacaat gctttgtgct gaatccattg tttcttatct gagtcaaat  
1560  
tttataacct gggcttggga tctgacaaag gactccaaca gagcaagatt tctcactatg  
1620  
tgcaatagac actttggcag tgttgtggca caaaccattc ggactcaaaa aacggatcag  
1680  
tttcgcgtt tcctgattat tatgggaaag cgatcatcta atgaagtgtt gaatgtgata  
1740  
caagggaaca caacagtaga tgagttaatg atgagactca tggctgcaat ggagatcttc  
1800  
acagcccaac aacaggaaga tataaaggac gaggatgaac gtgaagccag agaaaatgtg  
1860  
aagagagagc aagatgagcg ctatcgctt tcaactgagg ctgacagagc aaagagggaa  
1920  
gctcacgaga gagagatggc agaacagttt cgtttggagc agattcgcaa agaacaagaa  
1980  
gaggaacgtg aggccatccg gctgtcctta gagcaagccc tgcctcctga gccaaaggaa  
2040  
gaaaatgctg agcctgtgag caaactgcgg atccggaccc ccagtggcga gttcttggag  
2100  
cggcgtttcc tggccagcaa caagctccag attgtctttg atttttagc ttccaaagga  
2160

tttccatggg atgagtacaa gttactgagc acctttccta ggagagacgt aactcaactg  
 2220  
 gacccaaata aatcattatt ggaggtaaag ttgttccctc aagaaaccct tttccttgaa  
 2280  
 gcaaaagagt aaacacggcc cagcggtgga accagccatt ccttgacaag ccagcagcct  
 2340  
 gcgtcaggag aagggtcctc cgccaacca cccacacgct cgtctcactc aattcaatgt  
 2400  
 cacacttctg cctcttgcaa aattgctgga aaaagtaata ataaatatag ctacttaaga  
 2460  
 tttcccaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa  
 2508

<210> 6264

<211> 654

<212> PRT

<213> Homo sapiens

<400> 6264

Met Ala Ser Asn Met Asp Arg Glu Met Ile Leu Ala Asp Phe Gln Ala  
 1 5 10 15  
 Cys Thr Gly Ile Glu Asn Ile Asp Glu Ala Ile Thr Leu Leu Glu Gln  
 20 25 30  
 Asn Asn Trp Asp Leu Val Ala Ala Ile Asn Gly Val Ile Pro Gln Glu  
 35 40 45  
 Asn Gly Ile Leu Gln Ser Glu Tyr Gly Gly Glu Thr Ile Pro Gly Pro  
 50 55 60  
 Ala Phe Asn Pro Ala Ser His Pro Ala Ser Ala Pro Thr Ser Ser Ser  
 65 70 75 80  
 Ser Ser Ala Phe Arg Pro Val Met Pro Ser Arg Gln Ile Val Glu Arg  
 85 90 95  
 Gln Pro Arg Met Leu Asp Phe Arg Val Glu Tyr Arg Asp Arg Asn Val  
 100 105 110  
 Asp Val Val Leu Glu Asp Thr Cys Thr Val Gly Glu Ile Lys Gln Ile  
 115 120 125  
 Leu Glu Asn Glu Leu Gln Ile Pro Val Ser Lys Met Leu Leu Lys Gly  
 130 135 140  
 Trp Lys Thr Gly Asp Val Glu Asp Ser Thr Val Leu Lys Ser Leu His  
 145 150 155 160  
 Leu Pro Lys Asn Asn Ser Leu Tyr Val Leu Thr Pro Asp Leu Pro Pro  
 165 170 175  
 Pro Ser Ser Ser Ser His Ala Gly Ala Leu Gln Glu Ser Leu Asn Gln  
 180 185 190  
 Asn Phe Met Leu Ile Ile Thr His Arg Glu Val Gln Arg Glu Tyr Asn  
 195 200 205  
 Leu Asn Phe Ser Gly Ser Ser Thr Ile Gln Glu Val Lys Arg Asn Val  
 210 215 220  
 Tyr Asp Leu Thr Ser Ile Pro Val Arg His Gln Leu Trp Glu Gly Trp  
 225 230 235 240  
 Pro Thr Ser Ala Thr Asp Asp Ser Met Cys Leu Ala Glu Ser Gly Leu  
 245 250 255  
 Ser Tyr Pro Cys His Arg Leu Thr Val Gly Arg Arg Ser Ser Pro Ala  
 260 265 270  
 Gln Thr Arg Glu Gln Ser Glu Glu Gln Ile Thr Asp Val His Met Val

```

      275      280      285
Ser Asp Ser Asp Gly Asp Asp Phe Glu Asp Ala Thr Glu Phe Gly Val
290      295      300
Asp Asp Gly Glu Val Phe Gly Met Ala Ser Ser Ala Leu Arg Lys Ser
305      310      315      320
Pro Met Ile Cys Phe Leu Val Pro Glu Asn Ala Glu Asn Glu Gly Asp
      325      330      335
Ala Leu Leu Gln Phe Thr Ala Glu Phe Ser Ser Arg Tyr Gly Asp Cys
340      345      350
His Pro Val Phe Phe Ile Gly Ser Leu Glu Ala Ala Phe Gln Glu Ala
355      360      365
Phe Tyr Val Lys Ala Arg Asp Arg Lys Leu Leu Ala Ile Tyr Leu His
370      375      380
His Asp Glu Ser Val Leu Thr Asn Val Phe Cys Ser Gln Met Leu Cys
385      390      395      400
Ala Glu Ser Ile Val Ser Tyr Leu Ser Gln Asn Phe Ile Thr Trp Ala
405      410      415
Trp Asp Leu Thr Lys Asp Ser Asn Arg Ala Arg Phe Leu Thr Met Cys
420      425      430
Asn Arg His Phe Gly Ser Val Val Ala Gln Thr Ile Arg Thr Gln Lys
435      440      445
Thr Asp Gln Phe Pro Leu Phe Leu Ile Ile Met Gly Lys Arg Ser Ser
450      455      460
Asn Glu Val Leu Asn Val Ile Gln Gly Asn Thr Thr Val Asp Glu Leu
465      470      475      480
Met Met Arg Leu Met Ala Ala Met Glu Ile Phe Thr Ala Gln Gln Gln
485      490      495
Glu Asp Ile Lys Asp Glu Asp Glu Arg Glu Ala Arg Glu Asn Val Lys
500      505      510
Arg Glu Gln Asp Glu Ala Tyr Arg Leu Ser Leu Glu Ala Asp Arg Ala
515      520      525
Lys Arg Glu Ala His Glu Arg Glu Met Ala Glu Gln Phe Arg Leu Glu
530      535      540
Gln Ile Arg Lys Glu Gln Glu Glu Arg Glu Ala Ile Arg Leu Ser
545      550      555      560
Leu Glu Gln Ala Leu Pro Pro Glu Pro Lys Glu Glu Asn Ala Glu Pro
565      570      575
Val Ser Lys Leu Arg Ile Arg Thr Pro Ser Gly Glu Phe Leu Glu Arg
580      585      590
Arg Phe Leu Ala Ser Asn Lys Leu Gln Ile Val Phe Asp Phe Val Ala
595      600      605
Ser Lys Gly Phe Pro Trp Asp Glu Tyr Lys Leu Leu Ser Thr Phe Pro
610      615      620
Arg Arg Asp Val Thr Gln Leu Asp Pro Asn Lys Ser Leu Leu Glu Val
625      630      635      640
Lys Leu Phe Pro Gln Glu Thr Leu Phe Leu Glu Ala Lys Glu
645      650

```

&lt;210&gt; 6265

&lt;211&gt; 1344

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6265



nnagcacttc cagcctctca cegacccgga caacaaggtc ttaacccata ttttaactttg  
60  
aacacctctg gtagtggaac aattcttata gatctgtctc ctgatgataa agagtttcag  
120  
tctgtggagg aagagatgca aagtacagtt cgagagcaca gagatggagg tcatgcagg  
180  
ggaatcttca acagatacaa tattctcaag attcagaagg tttgtaacaa gaaactatgg  
240  
gaaagatata ctacccggag aaaagaagtt tctgaagaaa accacaacca tgccaatgaa  
300  
cgaatgctat ttcattgggtc tccctttgtg aatgcaatta tccacaaagg ctttgatgaa  
360  
aggcatgcgt acatagggtg tatgtttgga gctggcattt attttgctga aaactcttcc  
420  
aaaagcaatc aatatgtata tggaattgga ggaggctactg ggtgtccagt tcacaaagac  
480  
agatcttggt acatttgcca caggcagctg ctcttttgcc gggtaacctt gggaaagtct  
540  
ttcctgcagt tcagtgaat gaaaatggca cattctcttc caggctcatca ctcagtcact  
600  
ggtaggcccc gtgtaaatgg cctagcatta gctgaatatg ttatttacag aggagaacag  
660  
gcttatcctg agtatatta tacttaccag attatgaggc ctgaagggtat ggtcgatgga  
720  
taaatagtta ttttaagaaa ctaattccac tgaacctaaa atcatcaaag cagcagtggc  
780  
ctctacggtt tactcctttg ctgaaaaaaaa atcatcttgc ccacaggcct gtggcaaaag  
840  
gataaaaatg tgaacgaagt ttaacattct gacttgataa agctttaata atgtacagtg  
900  
ttttctaaat atttctgtt ttttcagcac tttaacagat gccattccag gttaaactgg  
960  
gttgtctgta cttaattata aacagagtta acttgaacct tttatatgtt atgcattgat  
1020  
tctaacaac tgtaatgcc tcaacagaac taattttact aatacaatac tgtgttcttt  
1080  
aaaacacagc atttacctg aatacaattt catttgtaaa actgtaataa agagcttttg  
1140  
tactagcccc gtatttatat acattgcttt gtaatatata tctgttttag aactgcagcg  
1200  
gtttacaaaa ttttttcata tgtattgttc atctatactt catcttacat cgtcatgatt  
1260  
gagtgatctt tacatttgat tccagaggct atgttcagtt gttagtggg aaagattgag  
1320  
ttatcagatt taatttgccg atgg  
1344

&lt;210&gt; 6266

&lt;211&gt; 240

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6266

Xaa Ala Leu Pro Ala Ser His Arg Pro Gly Gln Gln Gly Leu Asn Pro

1	5	10	15
Tyr Leu Thr Leu Asn Thr Ser Gly Ser Gly Thr Ile Leu Ile Asp Leu			
20	25	30	
Ser Pro Asp Asp Lys Glu Phe Gln Ser Val Glu Glu Glu Met Gln Ser			
35	40	45	
Thr Val Arg Glu His Arg Asp Gly His Ala Gly Gly Ile Phe Asn			
50	55	60	
Arg Tyr Asn Ile Leu Lys Ile Gln Lys Val Cys Asn Lys Lys Leu Trp			
65	70	75	80
Glu Arg Tyr Thr His Arg Arg Lys Glu Val Ser Glu Glu Asn His Asn			
85	90	95	
His Ala Asn Glu Arg Met Leu Phe His Gly Ser Pro Phe Val Asn Ala			
100	105	110	
Ile Ile His Lys Gly Phe Asp Glu Arg His Ala Tyr Ile Gly Gly Met			
115	120	125	
Phe Gly Ala Gly Ile Tyr Phe Ala Glu Asn Ser Ser Lys Ser Asn Gln			
130	135	140	
Tyr Val Tyr Gly Ile Gly Gly Thr Gly Cys Pro Val His Lys Asp			
145	150	155	160
Arg Ser Cys Tyr Ile Cys His Arg Gln Leu Leu Phe Cys Arg Val Thr			
165	170	175	
Leu Gly Lys Ser Phe Leu Gln Phe Ser Ala Met Lys Met Ala His Ser			
180	185	190	
Pro Pro Gly His His Ser Val Thr Gly Arg Pro Ser Val Asn Gly Leu			
195	200	205	
Ala Leu Ala Glu Tyr Val Ile Tyr Arg Gly Glu Gln Ala Tyr Pro Glu			
210	215	220	
Tyr Leu Ile Thr Tyr Gln Ile Met Arg Pro Glu Gly Met Val Asp Gly			
225	230	235	240

&lt;210&gt; 6267

&lt;211&gt; 328

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6267

gggccctccg gttttctcag ccctggtggg tgaggttggt ggccagggcc tgggccaatc

60

gggagagggg agggctaagc agagtgggga tgcccggcag tgaccagacc tctctcccca

120

gatgagcctt tcctgcagtt ccgaaggaac gtgttcttcc caaagcggcg ggagctccag

180

atccatgacg aggaggtcct gcggctgctc tatgaggagg ccaagggcaa cgtgctggct

240

gcacggtacc cgtgcgacgt ggaggactgc gaggctctgg gcgacctggg gtgccgcgtg

300

cagcttgggc cctaccagcc cggccggc

328

&lt;210&gt; 6268

&lt;211&gt; 83

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6268

Ala Glu Trp Gly Cys Pro Ala Val Thr Gln Pro Leu Ser Pro Asp Glu  
 1 5 10 15  
 Pro Phe Leu Gln Phe Arg Arg Asn Val Phe Phe Pro Lys Arg Arg Glu  
 20 25 30  
 Leu Gln Ile His Asp Glu Glu Val Leu Arg Leu Leu Tyr Glu Glu Ala  
 35 40 45  
 Lys Gly Asn Val Leu Ala Ala Arg Tyr Pro Cys Asp Val Glu Asp Cys  
 50 55 60  
 Glu Ala Leu Gly Ala Leu Val Cys Arg Val Gln Leu Gly Pro Tyr Gln  
 65 70 75 80  
 Pro Gly Arg

&lt;210&gt; 6269

&lt;211&gt; 923

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6269

nggcggaaga tggcgacgcc cctcgggtgg tcgaaggcgg ggtcaggatc tgtgtgtctc  
 60  
 gcttttagatc aactgcggga cgtgattgag tctcaggagg aactaatcca ccagctgagg  
 120  
 aacgtgatgg ttctccagga cgaaaatttt gtcagtaaag aagagtcca ggcagtggag  
 180  
 aagaagctgg tggaagagaa agctgcccat gccaaaacca aggtcctcct ggccaaggaa  
 240  
 gaggagaagt tacagtttgc cctcgagag gtagaggtgc tatccaagca gctggagaaa  
 300  
 gagaagctgg cctttgaaaa agcgctctcc agtgtcaaga gcaaagtcct tcaggagtcc  
 360  
 agcaagaagg accagctcat caccaagtgc aatgagattg agtctcacat tataaagcaa  
 420  
 gaagatatac ttaatggcaa agagaatgag attaaagagt tgcagcaagt tatcagccag  
 480  
 cagaaacaga tcttcagccc accaccagcc ggctccgttg caggaatcac atgtctgact  
 540  
 tccggatcca gaagcagcag gaaagctaca tggcccaggt gctggaccag aagcataaga  
 600  
 aagcctcagg gacacgtcag gccgcagcc accagcatcc cagggaataa taaaatggcc  
 660  
 gccgctttcc tgttctctgg ctgtaatccc cagcctctgc cttctctgct ctgggagtcc  
 720  
 ccagcctcta gcccctgcta cttccctccc tcttgatag tggtaggggt ccacaagggt  
 780  
 ggggcttgta gcctagggga ggagctgggt ctttgtgtgc tggtaggcac caccgcttcc  
 840  
 ttgggtatt taatcccttc ctatataaac agccctggtt acccagtaat attccacccc  
 900  
 actcccagtg tcttggtaaa ttt  
 923

&lt;210&gt; 6270

<211> 307  
 <212> PRT  
 <213> Homo sapiens

<400> 6270  
 Xaa Arg Lys Met Ala Thr Pro Leu Gly Trp Ser Lys Ala Gly Ser Gly  
 1 5 10 15  
 Ser Val Cys Leu Ala Leu Asp Gln Leu Arg Asp Val Ile Glu Ser Gln  
 20 25 30  
 Glu Glu Leu Ile His Gln Leu Arg Asn Val Met Val Leu Gln Asp Glu  
 35 40 45  
 Asn Phe Val Ser Lys Glu Glu Phe Gln Ala Val Glu Lys Lys Leu Val  
 50 55 60  
 Glu Glu Lys Ala Ala His Ala Lys Thr Lys Val Leu Leu Ala Lys Glu  
 65 70 75 80  
 Glu Glu Lys Leu Gln Phe Ala Leu Gly Glu Val Glu Val Leu Ser Lys  
 85 90 95  
 Gln Leu Glu Lys Glu Lys Leu Ala Phe Glu Lys Ala Leu Ser Ser Val  
 100 105 110  
 Lys Ser Lys Val Leu Gln Glu Ser Ser Lys Lys Asp Gln Leu Ile Thr  
 115 120 125  
 Lys Cys Asn Glu Ile Glu Ser His Ile Ile Lys Gln Glu Asp Ile Leu  
 130 135 140  
 Asn Gly Lys Glu Asn Glu Ile Lys Glu Leu Gln Gln Val Ile Ser Gln  
 145 150 155 160  
 Gln Lys Gln Ile Phe Ser Pro Pro Pro Ala Gly Ser Val Ala Gly Ile  
 165 170 175  
 Thr Cys Leu Thr Ser Gly Ser Arg Ser Ser Arg Lys Ala Thr Trp Pro  
 180 185 190  
 Arg Cys Trp Thr Arg Ser Ile Arg Lys Pro Gln Gly His Val Arg Pro  
 195 200 205  
 Ala Ala Thr Ser Ile Pro Gly Lys Asn Lys Met Ala Ala Phe Leu  
 210 215 220  
 Phe Ser Gly Cys Asn Pro Gln Pro Leu Pro Ser Leu Leu Trp Glu Ser  
 225 230 235 240  
 Pro Ala Ser Ser Pro Cys Tyr Phe Pro Pro Ser Trp Ile Val Val Gly  
 245 250 255  
 Val His Lys Val Gly Ala Cys Ser Leu Gly Glu Glu Leu Gly Leu Cys  
 260 265 270  
 Cys Leu Val Gly Thr Thr Ala Ser Phe Gly Tyr Leu Ile Pro Ser Tyr  
 275 280 285  
 Ile Asn Ser Pro Gly Tyr Pro Val Ile Phe His Pro Thr Pro Ser Val  
 290 295 300  
 Leu Val Asn  
 305

<210> 6271  
 <211> 1437  
 <212> DNA  
 <213> Homo sapiens

<400> 6271  
 nccatggcga cgggcggcca gcagaaggag aacacgctgc ttcacctctt cgccggcggg  
 60

tgtggaggca cagttggtgc tattttcact tgtccactag aagtcattaa gacacggttg  
120  
cagtccttcaa gattagctct ccggacagtc tactatcctc aggttcctct ggggaccatt  
180  
agtggagctg gaatggtgag accaacatcc gtgacacctg gactctttca gggtctgaag  
240  
gctgtatact ttgcatgtta ctccaaagcc aaagagcaat ttaatggcat ttcgtgcct  
300  
aacagcaata ttgtgcatct tttctcagct ggctctgcag cttttatcac aaattcctta  
360  
atgaatccta tatggatggt taaaaccgga atgcagctag aacagaaagt gaggggctct  
420  
aagcagatga atacactcca gtgtgctcgt tacgtttacc agaccgaagg cattcgtggc  
480  
ttctatagag gattaactgc ctgctatgct ggaatttccg aaactataat ctgctttgct  
540  
atttatgaaa gtttaaagaa gtatctgaaa gaagctccat tagcctcttc tgcaaatggg  
600  
actgagaaaa attccacaag tttttttgga cttatggcag ctgctgctct ttctaagggc  
660  
tgtgcctcct gcattgctta tccacacgaa gtcataagga cgaggctccg ggaagagggc  
720  
accaagtaca agtcttttgt ccagacggcg cgcttggtgt tccgggaaga aggctacctt  
780  
gccttttata gaggactgtt tgcccagctt atccggcaga tcccaaatac tgccattgtg  
840  
ttgtctactt atgagttaat tgtgtacctg ttagaagacc gtactcagta acaggccgga  
900  
aaatttgtgt ctagaagaat aaaactgaaa aactctagag aatttttttt cccattgat  
960  
gtttagaag tttgagactg aaacaggaaa ggccataaaa tatctgggtc atatcacctg  
1020  
ttggacattt ctttttgat tcatgctttc tggaaggttt aaattcatta acgttaatag  
1080  
ttaattataa cttttttttt aacttaagag gattcagggg taagcaccaa ctaaattaaa  
1140  
tcatgctatt taatttaagt atacatttgg cttgtgtcct cttttatgct cactatacta  
1200  
tgaaggactt aagtaattca gataaacctg ccctagaact gcagagaaaa atgataaagt  
1260  
gagaatacaa cttgttttat aatctgactt taagatcttg cactgctaga cagggagaa  
1320  
gtgtcgcat ttggctgggc actgtggtc acgcctgtaa tccagcact ttgggaggcc  
1380  
gagggtgggt gatcacaagg tcaggagatc gagaccatcc tggctaacca cctgcag  
1437

&lt;210&gt; 6272

&lt;211&gt; 296

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6272

Xaa Met Ala Thr Gly Gln Gln Lys Glu Asn Thr Leu Leu His Leu

```

      1           5           10           15
Phe Ala Gly Gly Cys Gly Gly Thr Val Gly Ala Ile Phe Thr Cys Pro
      20           25           30
Leu Glu Val Ile Lys Thr Arg Leu Gln Ser Ser Arg Leu Ala Leu Arg
      35           40           45
Thr Val Tyr Tyr Pro Gln Val His Leu Gly Thr Ile Ser Gly Ala Gly
      50           55           60
Met Val Arg Pro Thr Ser Val Thr Pro Gly Leu Phe Gln Val Leu Lys
      65           70           75           80
Ala Val Tyr Phe Ala Cys Tyr Ser Lys Ala Lys Glu Gln Phe Asn Gly
      85           90           95
Ile Phe Val Pro Asn Ser Asn Ile Val His Leu Phe Ser Ala Gly Ser
      100          105          110
Ala Ala Phe Ile Thr Asn Ser Leu Met Asn Pro Ile Trp Met Val Lys
      115          120          125
Thr Arg Met Gln Leu Glu Gln Lys Val Arg Gly Ser Lys Gln Met Asn
      130          135          140
Thr Leu Gln Cys Ala Arg Tyr Val Tyr Gln Thr Glu Gly Ile Arg Gly
      145          150          155          160
Phe Tyr Arg Gly Leu Thr Ala Ser Tyr Ala Gly Ile Ser Glu Thr Ile
      165          170          175
Ile Cys Phe Ala Ile Tyr Glu Ser Leu Lys Lys Tyr Leu Lys Glu Ala
      180          185          190
Pro Leu Ala Ser Ser Ala Asn Gly Thr Glu Lys Asn Ser Thr Ser Phe
      195          200          205
Phe Gly Leu Met Ala Ala Ala Leu Ser Lys Gly Cys Ala Ser Cys
      210          215          220
Ile Ala Tyr Pro His Glu Val Ile Arg Thr Arg Leu Arg Glu Glu Gly
      225          230          235          240
Thr Lys Tyr Lys Ser Phe Val Gln Thr Ala Arg Leu Val Phe Arg Glu
      245          250          255
Glu Gly Tyr Leu Ala Phe Tyr Arg Gly Leu Phe Ala Gln Leu Ile Arg
      260          265          270
Gln Ile Pro Asn Thr Ala Ile Val Leu Ser Thr Tyr Glu Leu Ile Val
      275          280          285
Tyr Leu Leu Glu Asp Arg Thr Gln
      290          295

```

&lt;210&gt; 6273

&lt;211&gt; 2355

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6273

ncgaggatca ttgcagaggc cctgactcga gtcactctaca acctgacaga gaaggggaca

60

ccccagacat gccggtgttc acagagcaga tgatccagca ggagcagctg gactcgggtga

120

tggactggct caccaaccag ccgcgccgg cagctggtgg acaaggacag caccttcctc

180

agcacgtgg agcaccacct gagccgctac ctgaaggacg tgaagcagca ccacgtcaag

240

gctgacaagc gggaccacaga gtttgtcttc tacgaccagc tgaagcaagt gatgaatgcg

300

tacagagtca agccggccgt ctttgacctg ctccctggctg ttggcattgc tgcctacctc  
360  
ggcatggcct acgtggctgt ccagggtgagc agtgcccagg ctccagcactt cagcctcctc  
420  
tacaagaccg tccagaggct gctcgtgaag gccaaagacac agtgacacag ccacccccac  
480  
agccggagcc cccgcgctc cacagtccct ggggcccagc acgagtgagt ggacactgcc  
540  
ccgcccgggg cggccctgca gggacagggg ccctctccct ccccgccggt ggttgaaca  
600  
ctgaattaca gagctttttt ctgttgctct ccgagactgg ggggggattg tttctctttt  
660  
tccttgctct tgaacttctt tggaggagag ctggggagac gtcccggggc caggctacgg  
720  
acttgccggac gagccccca gtccctgggag ccggccgccc tcggtctggt gtaagcacac  
780  
atgcacgatt aaagaggaga cgcggggacc ccctgcccga tcgcgcgcgg cctccgcca  
840  
ccgcccctcctg ccgcaagggg cctggactgc aggcctgacc tgctccctgc tccgtgtctg  
900  
tcctaggacg tccccctccg ctccccgatg gtggcgtgga catggttatt tatctctgct  
960  
ccttcttgcc tggaggaggg cagtgccagc cctggggttc tgggattcca gccctcctgg  
1020  
agccttttgt tccccatgtg gtctcagtga ccgctcccc tgacagtggg ctcggggagc  
1080  
tgcatcacc agccttcccc ttctccgact gcagggtctg atgtcatcgt tgacagcctt  
1140  
tgcttcgtgg gggcctggca ggcctgnncc tccccgaccc ccgaccact gcaaaccccc  
1200  
gttccccctg actcctcttc tcccagccca tccctccggc ccctgtgctt ctgcggcccc  
1260  
agcccagctc ccaggggcgt cacctgcttg gcctgggcca gctccctgcc ctgagtcctg  
1320  
agccagtgcc tgggtgttcc tgggctcggg actgggcccc caggcnatcc agggctttgc  
1380  
acggccagtt ggtcctccct ggggaactgg gtgcgggtgg agtactggga ggcaggagg  
1440  
ggcccgggga ggccttgtag ctccctccct cgtcctcgc cctgggcctc aagtctctca  
1500  
tcaatagaaa ggatgtgttc ggggtggggg cgtcagggtga gaacgtttgc tgggaaggag  
1560  
aggacttggt gcattggctct ggggcaccct tcctggaact cagagaggaa ggtccgggccc  
1620  
ctcgggaagc cttggacaga accctccacc ccgcagacca ggcgtcgtgt gtgtgtggga  
1680  
gagaaggagg cccgtgttga gctcagggtg accccgggtg gtccgttctt tagcaatata  
1740  
acctaccagc tgcgtgccga gcaggcttgg tggggaaggg acttgagctg ggcaagtcct  
1800  
ggcctggcac ccgcagcgt ctcccttccg tggcccaggg aggtgtttgc tgtccgaagg  
1860  
acctgggccc gcccatggga gcctgggggt ctgtccagat aggaccaggg ggtctcactt  
1920

tggccaccag ttcttcggcc agcacctctg cctccagaa cctgcagcct ggaggggtga  
 1980  
 ggggacaacc accctctctt cctccagggt ggcaggggac cctcttctcc cgtctgccct  
 2040  
 gcgggttgcc cgcctctccc agagacttgc ccaagggccc atcaccactg gcctctgggc  
 2100  
 acttgctgct agactctggg acccaggcag ctgccacctt gtcaccatga gagaatttgg  
 2160  
 ggagtgtctt catgctagcc agcaggctcc tgtctgggtg ccacggggcc agcattttgg  
 2220  
 agggagcttc ctctctctct tcctggacag gtcgtcagga tggatgcact gactgaccgt  
 2280  
 ctggggctca ggctgggtgt ggatgcagcc ggccgatgag aaaataaagc catattgaat  
 2340  
 gatcaaaaaa aaaaa  
 2355

<210> 6274  
 <211> 70  
 <212> PRT  
 <213> Homo sapiens

<400> 6274  
 Asp Pro Glu Phe Val Phe Tyr Asp Gln Leu Lys Gln Val Met Asn Ala  
 1 5 10 15  
 Tyr Arg Val Lys Pro Ala Val Phe Asp Leu Leu Leu Ala Val Gly Ile  
 20 25 30  
 Ala Ala Tyr Leu Gly Met Ala Tyr Val Ala Val Gln Val Ser Ser Ala  
 35 40 45  
 Gln Ala Gln His Phe Ser Leu Leu Tyr Lys Thr Val Gln Arg Leu Leu  
 50 55 60  
 Val Lys Ala Lys Thr Gln  
 65 70

<210> 6275  
 <211> 1534  
 <212> DNA  
 <213> Homo sapiens

<400> 6275  
 gggcggtagc gacaggccag agctgcggcc tgagcagcca gcgtccggca tgaaggtctg  
 60  
 ggggtctggct gctgcctgct tcttgctcca gcacatgga atgcctgcgc agtttaccct  
 120  
 gcctcctgcc ccgcgcgatg agacttcccc ggcgagcgt gtgtgccttg gccttggacg  
 180  
 tgacctctgt gggctctccc gttgctgcct gcggccgccc agccaacctg attggaagga  
 240  
 gccgagcggc gcagctttgc gggcccgacc ggctccgctt ggcaggtgaa gtgcaccggt  
 300  
 ttagaacctc tgacgtctct caagccactt tagccagtgt agccccagta tttactgtga  
 360  
 caaaatttga caaacaggga aacggtactt cttttgaaag gaagaaaact gaattatacc  
 420



aagaggttagg tcttcaagcc agagatttga gatttcagca tgtaatgagt atcacagtca  
 480  
 gaaacaatag gattatcatg agaatggagt atttgaaagc tgtgataact ccagagtgtc  
 540  
 ttctgatatt agattatcgt aatttaaact tagagcaatg gctgttccgg gaactccctt  
 600  
 cacagtgtgc tggagagggt caactcgta catacccttt accttttgag tttagagcta  
 660  
 tagaagcact cctgcaatat tggatcatgt tgttatctag atcaacaccc ttcaggggaa  
 720  
 acttagcatt ttgcagccac tgatccttga gaccttggat gctttggtgg accccaaca  
 780  
 ttcttctgta gacagaagca aactgcacat ttactacag aatggcaaaa gtctatcaga  
 840  
 gttagaaaca gatattaaaa ttttcaaaga gtcaattttg gagatcttgg atgaggaaga  
 900  
 gttgctagaa gagctctgtg tatcaaaatg ggagtgaccc acaagtcttt gnaaaagagc  
 960  
 agtgctggga ttgaccatgc agaagaaatg gagttgctgt tggaaaacta ctaccgattg  
 1020  
 gctgacgac tctccaatgc agctcgtgag cttagggtgc tgattgatga ttcacaaagt  
 1080  
 attattttca ttaatctgga cagccaccga aacgtgatga ttaggttgaa tctacagctg  
 1140  
 accatgggaa ccttctctct ttcgctcttt ggactaatgg gagttgcttt tggaatgaat  
 1200  
 ttggaatctt cccttgaaga ggaccataga attttttggc tgattacagg aattatgttc  
 1260  
 atgggaagtg gcctcatctg gagggcctg ctttcattcc ttggacgaca gctagaagct  
 1320  
 ccattgcctc ctatgatggc ttctttacct aaaaagactc ttctggcaga tagaagcatg  
 1380  
 gaattgaaaa atagcctcag actggatgga cttggatcag gaaggagcat cctaacaaac  
 1440  
 cgtttagaac agccccgtgg atactgaagt tttttttatg gtagttacag gaaacttctg  
 1500  
 atactctttt tattattttc ttgtatagag tcag  
 1534

<210> 6276

<211> 172

<212> PRT

<213> Homo sapiens

<400> 6276

Met Gly Val Thr His Lys Ser Leu Xaa Lys Ser Ser Ala Gly Ile Asp  
 1 5 10 15  
 His Ala Glu Glu Met Glu Leu Leu Leu Glu Asn Tyr Tyr Arg Leu Ala  
 20 25 30  
 Asp Asp Leu Ser Asn Ala Ala Arg Glu Leu Arg Val Leu Ile Asp Asp  
 35 40 45  
 Ser Gln Ser Ile Ile Phe Ile Asn Leu Asp Ser His Arg Asn Val Met  
 50 55 60  
 Ile Arg Leu Asn Leu Gln Leu Thr Met Gly Thr Phe Ser Leu Ser Leu

65		70		75		80									
Phe	Gly	Leu	Met	Gly	Val	Ala	Phe	Gly	Met	Asn	Leu	Glu	Ser	Ser	Leu
			85						90					95	
Glu	Glu	Asp	His	Arg	Ile	Phe	Trp	Leu	Ile	Thr	Gly	Ile	Met	Phe	Met
			100						105				110		
Gly	Ser	Gly	Leu	Ile	Trp	Arg	Arg	Leu	Leu	Ser	Phe	Leu	Gly	Arg	Gln
		115					120					125			
Leu	Glu	Ala	Pro	Leu	Pro	Met	Met	Ala	Ser	Leu	Pro	Lys	Lys	Thr	
	130					135					140				
Leu	Leu	Ala	Asp	Arg	Ser	Met	Glu	Leu	Lys	Asn	Ser	Leu	Arg	Leu	Asp
145					150					155				160	
Gly	Leu	Gly	Ser	Gly	Arg	Ser	Ile	Leu	Thr	Asn	Arg				
			165						170						

&lt;210&gt; 6277

&lt;211&gt; 1206

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6277

gctagcatgg cggatgatgga aggagacttg gtgaagaagg aaagctttgg tgtgaagctt  
 60  
 atggacttcc aggcccaccg gcgggggtggc actctaaata gaaagcacat atcccccgct  
 120  
 ttccagccgc cacttccgcc cacagatggc agcaccgtgg tgcctgctgg cccagagccc  
 180  
 cctccccaga gctctagggc tgaagcagc tctgggggtg ggactgtccc ctcttccgcg  
 240  
 ggcatatcgg agcagggggc gagcccaggc gacggcagtc ctcccaaac gaaggaccct  
 300  
 gtatctgcag ctgtgccagc accangggag aaacaacagt cagatagcat ctggccaaaa  
 360  
 tcagccccag gcagctgctg gctcccacca gctctccatg ggccacctca caatgctgca  
 420  
 gggcccagcc cgcatacact gcgcccagct gttaaaaaac ccgctccagc acccccga  
 480  
 ccgggcaacc cacctcctgg ccaccccggg ggccagagtt ctccaggaac atctcagcat  
 540  
 ccacccagtc tgtcacaaaa gccacccacc cgaagcccct ctccctccacc cagcacacgg  
 600  
 gccagcctcc agggcagccc tccgcccct cccagctctc agcaccctgg aggtactcca  
 660  
 ngcagcttgt ctccaatcca agctcccaat caccacccgc cgcagccccc tacgcaggcc  
 720  
 acgccactga tgcacaccaa acccaatagc cagggccctc ccaaccccat ggcatgccc  
 780  
 agtgagcatg gacttgagca gccatctcac accctcccc agactccaac gccccccagt  
 840  
 actccgcccc taggaaaaca gaacccagct ctgccagctc ctccagacct ggccgggggt  
 900  
 aaccctgaaa ctgcacagcc acatgctgga accttaccga gaccgagacc agtaccaaa  
 960  
 ccaagggaacc ggcccagcgt gcccacccc ccccaacctc ctggtgtcca ctccagctggg  
 1020

gacagcagcc tcaccaaac agcaccaaca gcttccaaga tagtaacaga ctccaattcc  
 1080  
 aggggtttcag aaccgcatcg cagcatcttt cctgaaatgc actcagactc agccagcaaa  
 1140  
 gacgtgcctg gccgcaccc gctggatata gacaatgata ccgagagcac tgccctgtga  
 1200  
 agaaag  
 1206

<210> 6278  
 <211> 399  
 <212> PRT  
 <213> Homo sapiens

<400> 6278  
 Ala Ser Met Ala Val Met Glu Gly Asp Leu Val Lys Lys Glu Ser Phe  
 1 5 10 15  
 Gly Val Lys Leu Met Asp Phe Gln Ala His Arg Arg Gly Gly Thr Leu  
 20 25 30  
 Asn Arg Lys His Ile Ser Pro Ala Phe Gln Pro Pro Leu Pro Pro Thr  
 35 40 45  
 Asp Gly Ser Thr Val Val Pro Ala Gly Pro Glu Pro Pro Gln Ser  
 50 55 60  
 Ser Arg Ala Glu Ser Ser Ser Gly Gly Gly Thr Val Pro Ser Ser Ala  
 65 70 75 80  
 Gly Ile Leu Glu Gln Gly Pro Ser Pro Gly Asp Gly Ser Pro Pro Lys  
 85 90 95  
 Pro Lys Asp Pro Val Ser Ala Ala Val Pro Ala Pro Xaa Glu Lys Gln  
 100 105 110  
 Gln Ser Asp Ser Ile Trp Pro Lys Ser Ala Pro Gly Ser Cys Trp Leu  
 115 120 125  
 Pro Pro Ala Leu His Gly Pro Pro His Asn Ala Ala Gly Pro Ser Pro  
 130 135 140  
 His Thr Leu Arg Arg Ala Val Lys Lys Pro Ala Pro Ala Pro Pro Lys  
 145 150 155 160  
 Pro Gly Asn Pro Pro Pro Gly His Pro Gly Gly Gln Ser Ser Ser Gly  
 165 170 175  
 Thr Ser Gln His Pro Pro Ser Leu Ser Pro Lys Pro Pro Thr Arg Ser  
 180 185 190  
 Pro Ser Pro Pro Pro Ser Thr Arg Ala Ser Leu Gln Ala Ser Pro Pro  
 195 200 205  
 Pro Pro Pro Ser Ser Gln His Pro Gly Gly Thr Pro Xaa Ser Leu Ser  
 210 215 220  
 Pro Ile Gln Ala Pro Asn His Pro Pro Pro Gln Pro Pro Thr Gln Ala  
 225 230 235 240  
 Thr Pro Leu Met His Thr Lys Pro Asn Ser Gln Gly Pro Pro Asn Pro  
 245 250 255  
 Met Ala Leu Pro Ser Glu His Gly Leu Glu Gln Pro Ser His Thr Pro  
 260 265 270  
 Pro Gln Thr Pro Thr Pro Pro Ser Thr Pro Pro Leu Gly Lys Gln Asn  
 275 280 285  
 Pro Ser Leu Pro Ala Pro Gln Thr Leu Ala Gly Gly Asn Pro Glu Thr  
 290 295 300  
 Ala Gln Pro His Ala Gly Thr Leu Pro Arg Pro Arg Pro Val Pro Lys

```

305          310          315          320
Pro Arg Asn Arg Pro Ser Val Pro Pro Pro Gln Pro Pro Gly Val
          325          330          335
His Ser Ala Gly Asp Ser Ser Leu Thr Asn Thr Ala Pro Thr Ala Ser
          340          345          350
Lys Ile Val Thr Asp Ser Asn Ser Arg Val Ser Glu Pro His Arg Ser
          355          360          365
Ile Phe Pro Glu Met His Ser Asp Ser Ala Ser Lys Asp Val Pro Gly
          370          375          380
Arg Ile Leu Leu Asp Ile Asp Asn Asp Thr Glu Ser Thr Ala Leu
385          390          395

```

```

<210> 6279
<211> 2795
<212> DNA
<213> Homo sapiens

```

```

<400> 6279
atggctgctg agaagcaggt cccaggcggc gccggcggcg gcggcggcag tggcggcggc
60
ggtggacgtg gtgccggagg ggaagaaaat aaagaaaacg aacgcccttc ggccggatcg
120
aaggcaaaca aagaatttgg gtagagcctg agtttgaga ttcttcagat tattaaggaa
180
tcccagcagc agcatggttt acggcatgga gatcttcaga ggtacagggg ctactgttcc
240
cgtagacaaa gacgtcttcg aaaaacactc aacttcaaga tgggtaacag acacaaattc
300
acagggaaga aagtactga agagcttctg accgataata gatacttgct tctggttctg
360
atggatgctg aaagagcctg gagctacgcc atgcagctga aacaggaagc caaactgaa
420
ccccgaaaaa ggtttcactt gttatctcgc ctacgcaaag ccgtgaagca tgcagaggaa
480
ttggaacgct tgtgtaagag caatcgcgtg gatgccaaga ccaaattaga ggctcaggct
540
tacacagctt acctctcagg aatgctacgt ttgtaacatc aagaatggaa agctgccatt
600
gaggctttta acaaatgcaa aactatctat gagaagctag ccagtgtctt cacagaggag
660
caggctgtgc tgtataacca acgtgtggaa gagatttcac ccaacatccg ctattgtgca
720
tataatattg gggaccagtc agccatcaat gaactcatgc agatgagatt gaggtctggg
780
ggcactgaag gtctcttggc tgaaaaattg gaggtttga tcaactcagac tcgagccaaa
840
caggcagcta ccatgagtga agtggagtgg agagggagaa cggttccagt gaagattgac
900
aaagtgcgca ttttcttatt aggactggct gataacgaag cagctattgt ccaggctgaa
960
agcgaagaaa ctaaggagcg cctgtttgaa tcaatgctca gcgagtgtcg ggacgccatc
1020
caggtgggtc gggaggagct caagccagat cagaacaga gagattatat cttgaagga
1080

```

gagccaggggagggtgtctaa tcttcaatac ttgcatagct acctgactta catcaagcta  
1140  
tcaacggcaa tcaacggtaa tgagaacatg gccaaaggct tgcacagggc tctgctgtag  
1200  
cagcagccag aggatgacag caagcgctca ccccgcccc aggacctgat ccgactctat  
1260  
gacatcatct tacagaatct ggtggaattg ctccagcttc ctggtttaga ggaagacaaa  
1320  
gccttccaga aagagatagg cctcaagact ctgggtgttca aagcttacag gtgttttttc  
1380  
attgctcagt cctatgtgct ggtgaagaag tggagcgaag cccttgctct gtatgacaga  
1440  
gtcctgaaat atgcaaatga agtaaattct gatgctggcg ccttcaagaa cagcctaaag  
1500  
gacctgcctg atgtgcaaga gctcatcact caagtgcgt cagagaagtg ctccctgcag  
1560  
gccgcagcca tccttgatgc aaacgacgct catcaaacag agacctcctc ctcccaagtc  
1620  
aaggacaata agcctctggt tgaacggttt gagacattct gcctggacct ttccctgtc  
1680  
accaagcaag ccaaccttgt gcacttccca ccaggcttcc agcccattcc ctgcaagcct  
1740  
ttgttctttg acctggccct caacctgtg gctttccac cccttgagga caagttggaa  
1800  
cagaagacca agagtggcct cactggatac atcaagggca tctttggatt caggagctaa  
1860  
ccaggctctt cctcgggggc gggggagatt ctgactctta atctgtattg tgagaaaatc  
1920  
ccagcaagtt ccatgatatt aaatccaggt ctgcattggc ccggggcaag agtttaacat  
1980  
cttcggccct gcattcctac atcttgtgtc tgtacacgtt cttaagcagc gtgtcaggag  
2040  
agcaccctgt tgtcttctgg taaatgtgtg cagggtcctc ctgtctcctg tacctcctgg  
2100  
gaaaggggcc gctgctgtct ggtgccctgt gagctgtgat tgattgcctt tggtcagtaa  
2160  
tgcttccagg agtccacacc aggcacagat ggggccttga aacgctttgt catgcttctt  
2220  
cagtaccatg gatttgaaat gaactcatcc ttgctgtgag catccaggag cccttgagaa  
2280  
gtttatctat gactatgaaa ctggcaacgt caccacagaa ttacggtcag ccttattccc  
2340  
cttcacctcc cagtgaacgc taagaagttt cagacaagca gagagctcta tttttagaag  
2400  
aaatatgtta cactcagaaa tgatgaaacc aaatcttata ttaaaaggca aagatgacgg  
2460  
agactgtgcc catttcttat atgccctccc tcatgtccag tccccgttct ctctcggga  
2520  
gcctagtgc gtgaagccgg tgaggtaag tgtaacctga ctaccggca actaggtgag  
2580  
gctgatgcca gatacacatg ttagaggcac tatttttcag gacttcccaa tgtgtaattt  
2640  
ttagatgcca ttatatatta atccccctcg ttaccccccg tttttcctta gtcacccctt  
2700

ttcacttcta ttataacatc aataatagaa gtcacaaaaa caatgtaaga aagcaaggaa  
2760  
taaaagtgat ttaaacaatgt aaaaaaaaaa aaaaa  
2795

<210> 6280  
<211> 619  
<212> PRT  
<213> Homo sapiens

<400> 6280  
Met Ala Ala Glu Lys Gln Val Pro Gly Gly Gly Gly Gly Gly Gly Gly  
1 5 10 15  
Ser Gly Gly Gly Gly Gly Arg Gly Ala Gly Gly Glu Glu Asn Lys Glu  
20 25 30  
Asn Glu Arg Pro Ser Ala Gly Ser Lys Ala Asn Lys Glu Phe Gly Asp  
35 40 45  
Ser Leu Ser Leu Glu Ile Leu Gln Ile Ile Lys Glu Ser Gln Gln Gln  
50 55 60  
His Gly Leu Arg His Gly Asp Phe Gln Arg Tyr Arg Gly Tyr Cys Ser  
65 70 75 80  
Arg Arg Gln Arg Arg Leu Arg Lys Thr Leu Asn Phe Lys Met Gly Asn  
85 90 95  
Arg His Lys Phe Thr Gly Lys Lys Val Thr Glu Glu Leu Leu Thr Asp  
100 105 110  
Asn Arg Tyr Leu Leu Leu Val Leu Met Asp Ala Glu Arg Ala Trp Ser  
115 120 125  
Tyr Ala Met Gln Leu Lys Gln Glu Ala Asn Thr Glu Pro Arg Lys Arg  
130 135 140  
Phe His Leu Leu Ser Arg Leu Arg Lys Ala Val Lys His Ala Glu Glu  
145 150 155 160  
Leu Glu Arg Leu Cys Lys Ser Asn Arg Val Asp Ala Lys Thr Lys Leu  
165 170 175  
Glu Ala Gln Ala Tyr Thr Ala Tyr Leu Ser Gly Met Leu Arg Phe Glu  
180 185 190  
His Gln Glu Trp Lys Ala Ala Ile Glu Ala Phe Asn Lys Cys Lys Thr  
195 200 205  
Ile Tyr Glu Lys Leu Ala Ser Ala Phe Thr Glu Glu Gln Ala Val Leu  
210 215 220  
Tyr Asn Gln Arg Val Glu Glu Ile Ser Pro Asn Ile Arg Tyr Cys Ala  
225 230 235 240  
Tyr Asn Ile Gly Asp Gln Ser Ala Ile Asn Glu Leu Met Gln Met Arg  
245 250 255  
Leu Arg Ser Gly Gly Thr Glu Gly Leu Leu Ala Glu Lys Leu Glu Ala  
260 265 270  
Leu Ile Thr Gln Thr Arg Ala Lys Gln Ala Ala Thr Met Ser Glu Val  
275 280 285  
Glu Trp Arg Gly Arg Thr Val Pro Val Lys Ile Asp Lys Val Arg Ile  
290 295 300  
Phe Leu Leu Gly Leu Ala Asp Asn Glu Ala Ala Ile Val Gln Ala Glu  
305 310 315 320  
Ser Glu Glu Thr Lys Glu Arg Leu Phe Glu Ser Met Leu Ser Glu Cys  
325 330 335  
Arg Asp Ala Ile Gln Val Val Arg Glu Glu Leu Lys Pro Asp Gln Lys

```

      340      345      350
Gln Arg Asp Tyr Ile Leu Glu Gly Glu Pro Gly Lys Val Ser Asn Leu
      355      360      365
Gln Tyr Leu His Ser Tyr Leu Thr Tyr Ile Lys Leu Ser Thr Ala Ile
      370      375      380
Lys Arg Asn Glu Asn Met Ala Lys Gly Leu His Arg Ala Leu Leu Gln
      385      390      395      400
Gln Gln Pro Glu Asp Asp Ser Lys Arg Ser Pro Arg Pro Gln Asp Leu
      405      410      415
Ile Arg Leu Tyr Asp Ile Ile Leu Gln Asn Leu Val Glu Leu Leu Gln
      420      425      430
Leu Pro Gly Leu Glu Glu Asp Lys Ala Phe Gln Lys Glu Ile Gly Leu
      435      440      445
Lys Thr Leu Val Phe Lys Ala Tyr Arg Cys Phe Phe Ile Ala Gln Ser
      450      455      460
Tyr Val Leu Val Lys Lys Trp Ser Glu Ala Leu Val Leu Tyr Asp Arg
      465      470      475      480
Val Leu Lys Tyr Ala Asn Glu Val Asn Ser Asp Ala Gly Ala Phe Lys
      485      490      495
Asn Ser Leu Lys Asp Leu Pro Asp Val Gln Glu Leu Ile Thr Gln Val
      500      505      510
Arg Ser Glu Lys Cys Ser Leu Gln Ala Ala Ala Ile Leu Asp Ala Asn
      515      520      525
Asp Ala His Gln Thr Glu Thr Ser Ser Ser Gln Val Lys Asp Asn Lys
      530      535      540
Pro Leu Val Glu Arg Phe Glu Thr Phe Cys Leu Asp Pro Ser Leu Val
      545      550      555      560
Thr Lys Gln Ala Asn Leu Val His Phe Pro Pro Gly Phe Gln Pro Ile
      565      570      575
Pro Cys Lys Pro Leu Phe Phe Asp Leu Ala Leu Asn His Val Ala Phe
      580      585      590
Pro Pro Leu Glu Asp Lys Leu Glu Gln Lys Thr Lys Ser Gly Leu Thr
      595      600      605
Gly Tyr Ile Lys Gly Ile Phe Gly Phe Arg Ser
      610      615

```

&lt;210&gt; 6281

&lt;211&gt; 741

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6281

```

nnctggggttg agagctgtcc cgggttctcc gttctgctct cgggggcacc ttccggggtt
60
cctaagccgc ggggcccctc gctgccctc gaggccctt cctgacctta ggctttggcc
120
tgggtacttc gttccggagc cgccatgtcg tccgacttcg aaggttacga gcaggacttc
180
gcggtgctca ctgcagagat caccagcaag attgcgaggg tcccacgact cccgcctgat
240
gaaaagaaac agatgggtgc aaatgtggag aaacagcttg aagaagcgaa agaactgctt
300
gaacagatgg atttgaagt ccgagagata ccaccccaa gtcgagggat gtacagcaac
360

```

agaatgagaa gctacaaaca agaaatggga aaactcgaaa cagatttttaa aagggtcacgg  
 420  
 atcgccctaca gtgacgaagt acggaatgag ctcctggggg atgatgggaa ttcctcagag  
 480  
 aaccagaggg cacatctgct cgataacaca gagaggctgg aaagggtcatc tcggagacta  
 540  
 gagggctggat accaaatagc agtggaaaacc ggtgagaatt ctgagagtga gcaaattgtc  
 600  
 ttgcttatgc acagcagtct tcacaacaca tgacatttca gggaaacttc aaaggagtag  
 660  
 cagagacagc agcccagat gtggtttaca tattggggag acaattggga gcttatctgc  
 720  
 gcttatcttt ttgcaagtta g  
 741

<210> 6282  
 <211> 162  
 <212> PRT  
 <213> Homo sapiens

<400> 6282  
 Met Ser Ser Asp Phe Glu Gly Tyr Glu Gln Asp Phe Ala Val Leu Thr  
 1 5 10 15  
 Ala Glu Ile Thr Ser Lys Ile Ala Arg Val Pro Arg Leu Pro Pro Asp  
 20 25 30  
 Glu Lys Lys Gln Met Val Ala Asn Val Glu Lys Gln Leu Glu Glu Ala  
 35 40 45  
 Lys Glu Leu Leu Glu Gln Met Asp Leu Glu Val Arg Glu Ile Pro Pro  
 50 55 60  
 Gln Ser Arg Gly Met Tyr Ser Asn Arg Met Arg Ser Tyr Lys Gln Glu  
 65 70 75 80  
 Met Gly Lys Leu Glu Thr Asp Phe Lys Arg Ser Arg Ile Ala Tyr Ser  
 85 90 95  
 Asp Glu Val Arg Asn Glu Leu Leu Gly Asp Asp Gly Asn Ser Ser Glu  
 100 105 110  
 Asn Gln Arg Ala His Leu Leu Asp Asn Thr Glu Arg Leu Glu Arg Ser  
 115 120 125  
 Ser Arg Arg Leu Glu Ala Gly Tyr Gln Ile Ala Val Glu Thr Gly Glu  
 130 135 140  
 Asn Ser Glu Ser Glu Gln Ile Val Leu Leu Met His Ser Ser Leu His  
 145 150 155 160  
 Asn Thr

<210> 6283  
 <211> 2312  
 <212> DNA  
 <213> Homo sapiens

<400> 6283  
 nnattcttga agtgggttcc atattctgat ctcaggcctg tcgagagtga gagttttatg  
 60  
 agcaaggact ggaaggaacc agagacaaac aagggtggtg gggttgctgg gagggggatg  
 120



gtagctaagc atgtcattta ctgttcttgt tgcttgggta ataggccaca atgaggaagc  
180  
tagcacggtg gtgggcaatg ccagggtggg aggtttgagt tgtgaaagaa gagccagggg  
240  
gcagagatgg ggaggaggca ctgatggggg gggatgtgct ttggtcacac atagcacagt  
300  
cgggtgtgtc ctcccttttg tccacagtgg ttcctgggct ttgctgtctt cctcctgccc  
360  
tgggcgctcca tgtggctgcg cagcctccta aaacctatcc acgtcttttt tggagccgcc  
420  
atcctctctc tgtccatcgc atccgtcatt tcgggcatta atgagaagct tttcttcagt  
480  
ttgaaaaaca ccaccaggcc ataccacagc ctgcccagtg aggcgggtctt tgccaacagc  
540  
accgggatgc tgggtggggc ctttgggctg ctgggtgctc acatccttct ggcttcctc  
600  
tggaagcgcc cagagccggg gatcctgacc gacagacagc ccctgctgca tgatggggag  
660  
tgaagcagca ggaaggggct cccaagagct cctggtggtg cagcctgtgc tcccctcaga  
720  
agctctgctc tccccagggc tcccggtctg tttcagcagg cgactttctt ccaatgctgg  
780  
gcccagactt cttgctggg tgctggcctg ccctctccgg ccgcttgctg cctgtctgct  
840  
ttccttgggt gctttgcctg ggtgctgggc ctgccctctc cggccgcttg ctgcctgtct  
900  
gctttccttg gtggtcttgc ctgggtgctg ggcctgcctt ctctggctgc ttgctgcctg  
960  
tctgctttcc ttggtggctt tggcttctgc actccttggc gtcagcctct caggctctcc  
1020  
attcacacga ggtcctctc gctctggcgg ctcttgctgc tcctgtctga agaaatcaga  
1080  
ctgatttcct cttaagactc ctagggatgt ggtgaagagc tgggactcaa gtgcagtcca  
1140  
cgggtgtgaaa catgaggagg gtgaggtgtc cgtccacttc cccataaag gtgtgcattt  
1200  
cagttaggct gccccgccac agagcaggct tcactgtctc tgccatccag ccccatctgg  
1260  
atgtgagggt ggggtggagac atcatggggg gattgcagaa agggggagtg gcggccacg  
1320  
cagcttctgc tgaggagctg accgctctga gctgttctgt ttctgtattg tgctctgtgt  
1380  
ctgcattgat tgtgaccgtg cggctccacc tcttccagct gctgctacag ctgaggcctg  
1440  
gatcccgccc tttccctgtg acttacgtgt ctgtcaccgg caggcagccc taaaaatcct  
1500  
ggtgacctgc tctcccaaga acagagcctg tccccagatg tcccagtagc gatgagtaac  
1560  
agagggtggc gtggacttcc tctacttctc cttgctggat cagggccttc ctgcctcccg  
1620  
ctgggcaggc ctggccttgc tctcttggca gggccccagc ccctctgacc actctgcagc  
1680  
tcaccatgca gctgatgcca aagttgtggt gtccagtgtg cagcagccct gggagccact  
1740

gccaccttca gagggttcc ttgctgagac ccacattgct tcacctggcc ccaccatggc  
 1800  
 tgcttgcttg gccaaccta gcgttctgtg ccatgctaga gcttgagctg ttgctcttct  
 1860  
 tcaggggagg aaatagggg gagagcggga agggctctgc tcctaagtgt tgctgctgtg  
 1920  
 gcttttttgc cttctccaaa gacgcactgc caggctccaa gcttcagact gctgtgctta  
 1980  
 gtaagcaagt gagaagcctg gggtttggag cccacctact ctctggcagc atcagcatcc  
 2040  
 tactcctggc aacatcaggc caacgtccac cccagcctca cattgccaga tgttggcaga  
 2100  
 agggctaata ttgaccgtct tgactggctg gaggcttcaa agccactggg atgtcctcca  
 2160  
 ggcacctggg tcccatgacc agctccccgt ctccataggg gtaggcattt cactgggtta  
 2220  
 tgaagctcga gtttcattaa atatgttaag aatcaaagct gtctttgttc aggctgctat  
 2280  
 aacaaaaata taatagcctg ggtggcttaa ac  
 2312

<210> 6284  
 <211> 122  
 <212> PRT  
 <213> Homo sapiens

<400> 6284  
 His Ser Arg Val Cys Pro Pro Phe Cys Pro Gln Trp Phe Leu Gly Phe  
 1 5 10 15  
 Ala Val Phe Leu Leu Pro Trp Ala Ser Met Trp Leu Arg Ser Leu Leu  
 20 25 30  
 Lys Pro Ile His Val Phe Phe Gly Ala Ala Ile Leu Ser Leu Ser Ile  
 35 40 45  
 Ala Ser Val Ile Ser Gly ile Asn Glu Lys Leu Phe Phe Ser Leu Lys  
 50 55 60  
 Asn Thr Thr Arg Pro Tyr His Ser Leu Pro Ser Glu Ala Val Phe Ala  
 65 70 75 80  
 Asn Ser Thr Gly Met Leu Val Val Ala Phe Gly Leu Leu Val Leu Tyr  
 85 90 95  
 Ile Leu Leu Ala Ser Ser Trp Lys Arg Pro Glu Pro Gly Ile Leu Thr  
 100 105 110  
 Asp Arg Gln Pro Leu Leu His Asp Gly Glu  
 115 120

<210> 6285  
 <211> 2542  
 <212> DNA  
 <213> Homo sapiens

<400> 6285  
 nttttttttt ttttttctgt ttatgacact ttattgatgc tgggggggtg gggaggagac  
 60  
 ctggagaaat atgtgggggc aagagtcccc aggtggggac agggaaagtg ttgaagcctg  
 120

gccactactg ggcaggggaag acagagttgc cactgtatgc acaggggatg agcagctgcc  
180  
gggtactccag gggcagggtgc cgctccacta gcacgtgcag tgagacttgg tcagtgaacca  
240  
ggccctgccc ccgcacacgc agctccaggt cctctggctt cacagctctg cggccagcat  
300  
gagcagcaaa tacctccaga tcatcacaaa gatgctggaa atatttatct aggcacttct  
360  
ccaccatctc aagagccttc ctctccatgg gcatcttggc atagaagcta aagagtttca  
420  
catagtgtctc agtccagcct tgtggggatc ttgccggggc ctggggccgg tgggccgggc  
480  
ctagggggat gcctgaccaa cagaggctct gcaggctctg aagataagac tgcagcacca  
540  
ggcgctgggg ctggctcaag aaactgatga tgtcgcttgg cctggagaga ctgaggggtg  
600  
ctggaggccg actctggact tgtgcccctg ccagaggcat cctcatcccc tgaagatgct  
660  
cctggcccgt cagcctcagc agtcccctgg gatccctctg cttctgtcac ctctgtgtgt  
720  
ccctcagcct cttctaccct gctgggtcct tgtgtcctg ttgcctccat ttcactcaca  
780  
ctcacacctt cttcttccat ctttttctct gctcttcaa ctccatcgtg taagggtctt  
840  
acttcattct ctccagagac accactgctg gtgtctcagg agcccagagc aaaggcattg  
900  
acctcctctg cctctcctgc cagaaactgg gctgggttcc cagggcctga gtgaagggga  
960  
gagaatacag gccggagacg cagcaggcca aggctgcata gctcagagaa gggtaaagat  
1020  
ggactctgct cttggatgaa ggaggcagcc acagccaggg tgctctaggg gcacagaggg  
1080  
gcttgaggaa ggaaaactac cattgtcaac tctcacccaa gctaaatttg gctccaggcc  
1140  
accagtgccca cacactcact attcttctgc agcccaggcc cactgctctg tgtcttgcca  
1200  
ccggcagcct gctcagcgtc ttcagcccca gtgtgaggcg tgcagggcag ggagtgtatc  
1260  
acgttggggg agccaaccat gggctgagag aacggctggg tgctctccaa cacaatgttg  
1320  
gaggagacca gggaagtatc tcgcagatcc cgcaaaaagg caccacgctc tacagctcgg  
1380  
cgggctggag gtctgcgggc caagccaggc ctctgcactg actgtggctg aagaggtgtg  
1440  
gcaaagggtca ggttgaggga tctgggtagg gaagaggcat cagcattccc ttgaggctct  
1500  
tgaggagagag acagcccctg gtccactccc tgctgaaaca ctgacagtct cagcctctgt  
1560  
ttcctctgc caggggccag cagacctgga gccagggttg tggggggctc gagctcagga  
1620  
agttgcagct ccaggctgcc gcaactgctc tcttgtctgg aggggtggac cgcctgcgg  
1680  
gctggcactg gcttactac cgactcaggc atcaggatgg aagattctgg ggcagttagt  
1740

aggatgttct tcagcagcgt ccgaggtgtc tgttcctcca agtgcctact ggcctgaata  
 1800  
 tgggcccgatc tgccaacaga cctggctcca tgggaacgcc ctctggctat cgtccttggt  
 1860  
 tggccactca acttctctggg ggaagccgtt tcaagcaggg ctctccgggc tccagcccga  
 1920  
 gcactccggg gtgcgcggg ggtgcgcggg tccgctgtat ccagcacgcg tcgcagcagc  
 1980  
 gtgcgcggcg tggagtcgct gtcagggttg tggtcagcca tcgtctcggc cccgggacct  
 2040  
 cctaaccgcc cagccagctg caggctccgc ctcccgccg ccacagttaa tgtaactctc  
 2100  
 gcgatgtctc cgcacagccc caccggaatt gtagttctcg cactatcgca gctcgcgggg  
 2160  
 tggacagtga tggttgcaaa ctccggatgc tttggaggca gcctcgctgc gggtaaacct  
 2220  
 cggttaatgt aatgcaagca gcccaagtct tggcttcttc atcatattct gttagtgttt  
 2280  
 tcctccgtat ttttactgg ttgacaatcc tctcacctta agttttcatg gcaactgaat  
 2340  
 tagaacttgg tttctgagtc ttccgtggag ttcagtttcc cagaatctat aattccatct  
 2400  
 attcgggaaa gtgaggcagg agcattgctt gatccttggg aggcagaggt tgcatactcg  
 2460  
 agatcgagcc acaatactcc atcttgggcg gttaagaggg ccccgttccc agcctatgcc  
 2520  
 ttcccacttc cctgttcaaa ta  
 2542

<210> 6286

<211> 57

<212> PRT

<213> Homo sapiens

<400> 6286

Pro	Gly	Pro	Ala	Ala	Ala	Ser	Ala	Ala	Pro	Gly	Pro	Leu	Ala	Ser	Gln
1				5					10					15	
Ser	Cys	Gly	Gln	His	Glu	Gln	Gln	Ile	Pro	Pro	Asp	His	His	Lys	Asp
			20					25					30		
Ala	Gly	Asn	Ile	Tyr	Leu	Gly	Thr	Ser	Pro	Pro	Ser	Gln	Glu	Pro	Ser
			35				40						45		
Ser	Pro	Trp	Ala	Ser	Trp	His	Arg	Ser							
		50				55									

<210> 6287

<211> 1674

<212> DNA

<213> Homo sapiens

<400> 6287

ntcgcgattc gcgcgcggcg ggagcgggag gaggaggcat cgtccccggg gctgggctgc  
 60  
 agcaagccgc acctggagaa gctgaccctg ggcacacgc gcatectaga atcttcccca  
 120

gggtgactg aggtgaccat catagaaaag cctcctgctg aacgtcatat gatttcttcc  
180  
tgggaacaaa agaataactg tgtgatgcct gaagatgtga agaactttta cctgatgacc  
240  
aatggcttcc acatgacatg gagtgtgaag ctggatgagc acatcattcc actgggaagc  
300  
atggcaatta acagcatctc aaaactgact cagctcacc cagcttccat gtattcactt  
360  
cctaattgcac ccactctggc agacctggag gacgatacac atgaagccag tgatgatcag  
420  
ccagagaagc ctcaacttga ctctcgagc gtgatatattg agctggattc atgcaatggc  
480  
agtgggaaa tttgccttgt ctacaaaagt gggaaaccag cattagcaga agacactgag  
540  
atctgggtcc tggacagagc gttatactgg ctttttctca cagacacctt tactgcctat  
600  
taccgcctgc tcatcaccca cctgggctcg cccagtggc aatatgcctt caccagctat  
660  
ggcattagcc cacaggccaa gcaatgggtc agcatgtata aacctatcac ctacaacaca  
720  
aacctgctca cagaagagac cgactccttt gtgaataagc tagatcccag caaagtgttt  
780  
aagagcaaga acaagatcgt aatcccaaaa aagaaagggc ctgtgcagcc tgcaggtggc  
840  
cagaaagggc cctcaggacc ctccggctcc tccacttctt ccacttctaa atcctcctct  
900  
ggctctggaa accccaccgg gaagttagca cccctccctc caactcccta ccagctccag  
960  
agtgggtggt tccatgcaca gatggcccta ggggtgacct ccagttttgc gtgtggaccg  
1020  
taggcctctt tctagttaa tgacaaaaat tgtaaggctt ttagtccac cgacattagc  
1080  
caggctcgta gtgaggctc cagagcaggt tgtgctgtcc cctgcctctg gaagcaatgg  
1140  
ggaatttga atcttgtgta agtgcccaaa taagtctgag tgctttcttc ttcttcaaca  
1200  
ctcaaccctc aatcccttag cactgattga ttagagaggt ccccaaaaga aaccactggt  
1260  
tttgaccat gaagcattag aactgcattg ttcattcagg agccactagt cacatatgac  
1320  
tatttaaatt taaagtaaat tgtatgaaaa attcatttct tcaattgcat tagccacatt  
1380  
ttgagtattc atgtggctgg tagattctgt attagcacia agatatggaa catttccatc  
1440  
accacagaaa gttctgttgg acagcactgc attagaatat ttccatactg ctcttctca  
1500  
attaattttt gttgttaatg ttgatgtctt cattggatgg gtcataatgt tccatgaaac  
1560  
ctctcaagta cacaattgta tgttctttgt atcccttacc acaaatatct cgctctgctc  
1620  
atttcttttg cagcttctta taaagtttgt cttcctcatc aaaaaaaaaa aaaa  
1674

&lt;210&gt; 6288

<211> 269  
 <212> PRT  
 <213> Homo sapiens

<400> 6288  
 Pro Gly Val Thr Glu Val Thr Ile Ile Glu Lys Pro Pro Ala Glu Arg  
 1 5 10 15  
 His Met Ile Ser Ser Trp Glu Gln Lys Asn Asn Cys Val Met Pro Glu  
 20 25 30  
 Asp Val Lys Asn Phe Tyr Leu Met Thr Asn Gly Phe His Met Thr Trp  
 35 40 45  
 Ser Val Lys Leu Asp Glu His Ile Ile Pro Leu Gly Ser Met Ala Ile  
 50 55 60  
 Asn Ser Ile Ser Lys Leu Thr Gln Leu Thr Gln Ser Ser Met Tyr Ser  
 65 70 75 80  
 Leu Pro Asn Ala Pro Thr Leu Ala Asp Leu Glu Asp Asp Thr His Glu  
 85 90 95  
 Ala Ser Asp Asp Gln Pro Glu Lys Pro His Phe Asp Ser Arg Ser Val  
 100 105 110  
 Ile Phe Glu Leu Asp Ser Cys Asn Gly Ser Gly Lys Val Cys Leu Val  
 115 120 125  
 Tyr Lys Ser Gly Lys Pro Ala Leu Ala Glu Asp Thr Glu Ile Trp Phe  
 130 135 140  
 Leu Asp Arg Ala Leu Tyr Trp His Phe Leu Thr Asp Thr Phe Thr Ala  
 145 150 155 160  
 Tyr Tyr Arg Leu Leu Ile Thr His Leu Gly Leu Pro Gln Trp Gln Tyr  
 165 170 175  
 Ala Phe Thr Ser Tyr Gly Ile Ser Pro Gln Ala Lys Gln Trp Phe Ser  
 180 185 190  
 Met Tyr Lys Pro Ile Thr Tyr Asn Thr Asn Leu Leu Thr Glu Glu Thr  
 195 200 205  
 Asp Ser Phe Val Asn Lys Leu Asp Pro Ser Lys Val Phe Lys Ser Lys  
 210 215 220  
 Asn Lys Ile Val Ile Pro Lys Lys Lys Gly Pro Val Gln Pro Ala Gly  
 225 230 235 240  
 Gly Gln Lys Gly Pro Ser Gly Pro Ser Gly Pro Ser Thr Ser Ser Thr  
 245 250 255  
 Ser Lys Ser Ser Ser Gly Ser Gly Asn Pro Thr Arg Lys  
 260 265

<210> 6289  
 <211> 1321  
 <212> DNA  
 <213> Homo sapiens

<400> 6289  
 acactgcgtc cggggccaga cgacgatatc agcgcgggggt ccccaacaacg ccatgggggca  
 60  
 gagccaactc tcgagcgcgt gatcgaagcc cgcagttttt tcgccccctg cacttcggg  
 120  
 tgcgacaatc tcttctgtcc ggccagccgc tggagtcggt aggtgcgcgc ttgcttctga  
 180  
 cgagccacac gtttgcttct tccctgtgtt cccagctgga gggacatgag tgtccctggg  
 240

ccgtcgtctc cggacggggc cctgacacgg ccaccctact gcctggaggc cggggagccg  
 300  
 acgcctgggt taagtgcacac ttctccagat gaaggggttaa tagaggactt gactatagaa  
 360  
 gacaaagcag tggagcaact ggcagaagga ttgctttctc attatttgc agatctgcag  
 420  
 agatcaaaac aagccctcca ggaactcaca cagaaccaag ttgtattgtt agacacactg  
 480  
 gaacaagaga ttcaaaatt taaagaatgt cattctatgt tggatattaa tgctttgttt  
 540  
 gctgaggcta aacactatca tgccaagtgt gtgaatataa gaaaagagat gctgatgctt  
 600  
 catgaaaaaa catcaaaagt aaaaaaaga gcacttaaac tgcagcagaa gaggcaaaaa  
 660  
 gaagagttgg aaaggagca gcaacgagag aaggggtttg aaagagaaaa gcagttaact  
 720  
 gccagaccag ccaaaaggat gtgaaaagt gtgtttgtgt gttttcttct cctgtcccat  
 780  
 atttgggtta tgatgactca agtgtagact gaagttgagg tagtgcccta tgccattatg  
 840  
 tcatatgttg aaatccttat tccggtatta ctgtgtctcc atgccttttt tccaagtagc  
 900  
 agacgtcatg ttgcattggt ttgatattt atagttaagt ttttcaaatt ttgcttaatt  
 960  
 ttaaaattta ttattttgat cttgaattat ttataaactg gaaagtgggt tgattattgt  
 1020  
 gagtcaaaaac tctaagtgtt taaaaattag tatgaatttt tttagcttctt aatgaatatg  
 1080  
 gatttaaaaa tctccagttc ttattttatg aaatgacttg cctttcttgt aatacaatgc  
 1140  
 tgatttttta gtaattgcct ttccattact ttgttaagaa gaaatgccag ctgtttaatc  
 1200  
 acacctaccc ctggaaaaga ggtaaacctt ttgaacagtt gaatttcac agaatgctcta  
 1260  
 tagctttttt gtgagaggaa gtgatactct ttattacaag aaacaaggaa ttaacaaaaa  
 1320  
 t  
 1321

&lt;210&gt; 6290

&lt;211&gt; 172

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6290

Met Ser Val Pro Gly Pro Ser Ser Pro Asp Gly Ala Leu Thr Arg Pro  
 1 5 10 15  
 Pro Tyr Cys Leu Glu Ala Gly Glu Pro Thr Pro Gly Leu Ser Asp Thr  
 20 25 30  
 Ser Pro Asp Glu Gly Leu Ile Glu Asp Leu Thr Ile Glu Asp Lys Ala  
 35 40 45  
 Val Glu Gln Leu Ala Glu Gly Leu Leu Ser His Tyr Leu Pro Asp Leu  
 50 55 60  
 Gln Arg Ser Lys Gln Ala Leu Gln Glu Leu Thr Gln Asn Gln Val Val

65		70		75		80									
Leu	Leu	Asp	Thr	Leu	Glu	Gln	Glu	Ile	Ser	Lys	Phe	Lys	Glu	Cys	His
				85					90					95	
Ser	Met	Leu	Asp	Ile	Asn	Ala	Leu	Phe	Ala	Glu	Ala	Lys	His	Tyr	His
		100						105						110	
Ala	Lys	Leu	Val	Asn	Ile	Arg	Lys	Glu	Met	Leu	Met	Leu	His	Glu	Lys
		115					120					125			
Thr	Ser	Lys	Leu	Lys	Lys	Arg	Ala	Leu	Lys	Leu	Gln	Gln	Lys	Arg	Gln
		130				135					140				
Lys	Glu	Glu	Leu	Glu	Arg	Glu	Gln	Gln	Arg	Glu	Lys	Gly	Phe	Glu	Arg
		145			150					155				160	
Glu	Lys	Gln	Leu	Thr	Ala	Arg	Pro	Ala	Lys	Arg	Met				
		165							170						

&lt;210&gt; 6291

&lt;211&gt; 2718

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6291

```

naggttggtct tggcgggggg cgtggcacct gcactgttcc ggggggatgcc agctcacttc
60
tcggacagcg cccagactga ggcctgctac cacatgctga gccggcccca gccgccacc
120
gacccctcc tgctccagcg tctgccacgg cccagctccc tgtcagacaa gaccagctc
180
cacagcaggt ggctggactc gtcgcggtgt ctcatgcagc agggcatcaa ggctggggac
240
gcactctggc tgcgcttcaa gtactacagc ttcttcgatt tggatcccaa gacagacccc
300
gtgcggtga cacagctgta tgagcaggcc cgggtgggacc tgctgctgga ggagattgac
360
tgcaccgagg aggagatgat ggtgtttgcc gccctgcagt accacatcaa caagctgtcc
420
cagagcgggg aggtggggga gccggctggc acagaccag ggctggacga cctggatgtg
480
gccctgagca acctggaggt gaagctggag gggtcggcgc ccacagatgt gctggacagc
540
ctcaccacca tcccagagct caaggactat ctccgaatct ttcgcccccga gaagctgacc
600
ctgaagggt accgccaaca ctgggtggtg ttcaaggaga ccactactgc ctactacaag
660
agccaggacg aggcccttgg ggacccatt cagcagctca acctcaaggg ctgtgaggtg
720
gttcccgatg ttaacgtctc cggccagaag ttctgcatta aactcctagt gccctccctc
780
gagggcatga gtgagatcta cctgcggtgc caggatgagc agcagtatgc ccgctggatg
840
gctgggtgcc gcctggcctc caaaggccgc accatggccg acagcagcta caccagcgag
900
gtgcaggcca tcctggcctt cctcagcctg cagcacgggc agtgggggccc caggcaacca
960
ccccacggc ctgatgcctc tgccgagggc ctcaaccctt acggcctcgt tgccccccgt
1020

```



ttccagcgaa agttcaaggg caagcagctc accccacgga tcctggaagc ccaccagaat  
1080  
gtggcccagt tgcgctggc agaggcccag ctgcgcttca tccaggcctg gcagtccctg  
1140  
cccgaattcg gcatctccta tgtcatggc aggttcaagg gcagcaggaa agacgagatc  
1200  
ctgggcatcg ccaacaaccg actgatccgc atcgacttgg ccgtgggtga cgtggtcaag  
1260  
acctggcggt tcagcaacat gcgccagtgg aatgtcaact gggacatccg gcaggtggcc  
1320  
atcgagtttg atgaacacat caatgtggcc ttcagctgtg tgtctgccag ctgccgaatt  
1380  
gtacacgagt atatcggggg ctacattttc ctgtcgacgc gggagcgggc ccgtggggag  
1440  
gagctggatg aagacctctt cctgcagctc accggggggc atgaggcctt ctgagggctg  
1500  
tctgattgcc cctgcctcgc tcaccaccct gtcacagcca ctcccaagcc cacaccaca  
1560  
ggggctcact gccccacacc cgctccaggc aggcacccag ctgggcattt cacctgctgt  
1620  
cactgacttt gtgcaggcca aggacctggc agggccagac gctgtaccat caccagggc  
1680  
agggatgggg gtgggggtcc ctgagctcat gtggtgcccc ctttccttgt ctgagtggct  
1740  
gaggctgata cccctgacct atctgcagtc cccagcaca caaggaagac cagatgtagc  
1800  
tacaggatga tgaacatggt tttcaaacga gttctttctt gttacttttt aaaattttt  
1860  
ttttataaat taatatttta ttgttgatc ctctcctttt ctctggagct gtgcttgggg  
1920  
ctactctgac actctgtctc ttcacacca gccaaagaaa ggggctttcg ggtagggcgt  
1980  
agctgcaggg cctccttgaa gtacttgga aggaggaagc catcagtatt ccctggagtc  
2040  
agaatcacc cttggcaga gcggaagaag ggtattccat ctgccagagc caggggtcca  
2100  
tcgatgaaca cagctatttc acaatgggac cgcattgccac tgatgatacc ggggtctcca  
2160  
ggcagtcctg gggccagggt aatgtgcgtc cttccctggc aggacaggcc tttgagtagg  
2220  
atggatggcc agtgcttcca gaatgtacca tggactagca tcgggggcag ggctgcggtg  
2280  
tctccagggg catcagctcc aacttaggta cctgcaggga atggccctgg ttggcccgga  
2340  
tgagaaggcc agtgctggga tccccagct gcaggggcga ccgctgcttc ctattggtgt  
2400  
ccaccacgcg ctgcacatct tcagcagaga agccgcggaa ctggggcaac tgcaggaggg  
2460  
tgcccagggg caggaagcca tctgtgggca ggcagggtgc tcaggagcta accttgctct  
2520  
ggactggggc agggtaaca gggagccaca ggcaaccgaa acaaagtctg ggcttggaga  
2580  
tcgcttgggc atcctctgtg ggaccttag aaagtctccc ctttctgggc cgcagttttc  
2640

aacttacata aaaagaggat ctgcctcacg gaggggcagg gaggtgagtg cccagcatag  
 2700  
 cgctggcccg gagtgcac  
 2718

<210> 6292

<211> 497

<212> PRT

<213> Homo sapiens

<400> 6292

Xaa	Val	Val	Leu	Ala	Gly	Gly	Val	Ala	Pro	Ala	Leu	Phe	Arg	Gly	Met
1			5					10						15	
Pro	Ala	His	Phe	Ser	Asp	Ser	Ala	Gln	Thr	Glu	Ala	Cys	Tyr	His	Met
		20					25					30			
Leu	Ser	Arg	Pro	Gln	Pro	Pro	Pro	Asp	Pro	Leu	Leu	Leu	Gln	Arg	Leu
		35					40					45			
Pro	Arg	Pro	Ser	Ser	Leu	Ser	Asp	Lys	Thr	Gln	Leu	His	Ser	Arg	Trp
	50					55					60				
Leu	Asp	Ser	Ser	Arg	Cys	Leu	Met	Gln	Gln	Gly	Ile	Lys	Ala	Gly	Asp
65				70						75				80	
Ala	Leu	Trp	Leu	Arg	Phe	Lys	Tyr	Tyr	Ser	Phe	Phe	Asp	Leu	Asp	Pro
			85					90					95		
Lys	Thr	Asp	Pro	Val	Arg	Leu	Thr	Gln	Leu	Tyr	Glu	Gln	Ala	Arg	Trp
		100						105					110		
Asp	Leu	Leu	Leu	Glu	Glu	Ile	Asp	Cys	Thr	Glu	Glu	Glu	Met	Met	Val
	115						120					125			
Phe	Ala	Ala	Leu	Gln	Tyr	His	Ile	Asn	Lys	Leu	Ser	Gln	Ser	Gly	Glu
	130					135					140				
Val	Gly	Glu	Pro	Ala	Gly	Thr	Asp	Pro	Gly	Leu	Asp	Asp	Leu	Asp	Val
145					150					155				160	
Ala	Leu	Ser	Asn	Leu	Glu	Val	Lys	Leu	Glu	Gly	Ser	Ala	Pro	Thr	Asp
			165					170					175		
Val	Leu	Asp	Ser	Leu	Thr	Thr	Ile	Pro	Glu	Leu	Lys	Asp	Tyr	Leu	Arg
	180							185					190		
Ile	Phe	Arg	Pro	Arg	Lys	Leu	Thr	Leu	Lys	Gly	Tyr	Arg	Gln	His	Trp
	195					200						205			
Val	Val	Phe	Lys	Glu	Thr	Thr	Leu	Ser	Tyr	Tyr	Lys	Ser	Gln	Asp	Glu
	210					215					220				
Ala	Pro	Gly	Asp	Pro	Ile	Gln	Gln	Leu	Asn	Leu	Lys	Gly	Cys	Glu	Val
225					230					235				240	
Val	Pro	Asp	Val	Asn	Val	Ser	Gly	Gln	Lys	Phe	Cys	Ile	Lys	Leu	Leu
			245						250				255		
Val	Pro	Ser	Pro	Glu	Gly	Met	Ser	Glu	Ile	Tyr	Leu	Arg	Cys	Gln	Asp
		260						265					270		
Glu	Gln	Gln	Tyr	Ala	Arg	Trp	Met	Ala	Gly	Cys	Arg	Leu	Ala	Ser	Lys
		275					280					285			
Gly	Arg	Thr	Met	Ala	Asp	Ser	Ser	Tyr	Thr	Ser	Glu	Val	Gln	Ala	Ile
	290				295						300				
Leu	Ala	Phe	Leu	Ser	Leu	Gln	His	Gly	Gln	Trp	Gly	Pro	Arg	Gln	Pro
305					310					315				320	
Pro	Pro	Arg	Pro	Asp	Ala	Ser	Ala	Glu	Gly	Leu	Asn	Pro	Tyr	Gly	Leu
			325					330					335		
Val	Ala	Pro	Arg	Phe	Gln	Arg	Lys	Phe	Lys	Ala	Lys	Gln	Leu	Thr	Pro

```

      340      345      350
Arg Ile Leu Glu Ala His Gln Asn Val Ala Gln Leu Ser Leu Ala Glu
      355      360      365
Ala Gln Leu Arg Phe Ile Gln Ala Trp Gln Ser Leu Pro Asp Phe Gly
      370      375      380
Ile Ser Tyr Val Met Val Arg Phe Lys Gly Ser Arg Lys Asp Glu Ile
      385      390      395      400
Leu Gly Ile Ala Asn Asn Arg Leu Ile Arg Ile Asp Leu Ala Val Gly
      405      410      415
Asp Val Val Lys Thr Trp Arg Phe Ser Asn Met Arg Gln Trp Asn Val
      420      425      430
Asn Trp Asp Ile Arg Gln Val Ala Ile Glu Phe Asp Glu His Ile Asn
      435      440      445
Val Ala Phe Ser Cys Val Ser Ala Ser Cys Arg Ile Val His Glu Tyr
      450      455      460
Ile Gly Gly Tyr Ile Phe Leu Ser Thr Arg Glu Arg Ala Arg Gly Glu
      465      470      475      480
Glu Leu Asp Glu Asp Leu Phe Leu Gln Leu Thr Gly Gly His Glu Ala
      485      490      495
Phe

```

```

<210> 6293
<211> 750
<212> DNA
<213> Homo sapiens

```

```

<400> 6293
nggcggggcg ccatggcacc gtggggcaag cggctggctg gcgtgcgcgg ggtgctgctt
60
gacatctcgg gcgtgctgta cgacagcggc gcgtgcggcg gcacggccat cgccggctcg
120
gtggaggcgg tggccagact gaagcgttcc cggctgaagg tgaggttctg caccaacgag
180
tcgcagaagt cccgggcaga gctgggtggg cagcttcaga ggctgggatt tgacatctct
240
gagcaggagg taaccgcccc ggcaccagct gcctgccaga tcctgaagga gcgaggcctg
300
cgaccatacc tgctcatcca tgacggagtc cgctcagaat ttgatcagat cgacacatcc
360
aaccctaaact gtgtggtaat tgcagacgca ggagaaagct tttcttatca aaacatgaat
420
aacgccttcc aggtgctcat ggagctggaa aaacctgtgc tcatatcact gggaaaaggg
480
cgttactaca aggagacctc tggcctgatg ctggacgttg gtccctacat gaaggcgctt
540
gagtatgcct gtggcatcaa agccgaggtg gtggggaagc cttctcctga gtttttcaag
600
tctgccctgc aagcgatagg agtgggaagc caccaggccg tcatgattgg ggacgatatc
660
gtgggacgac tcggcggtgc ccagcggtgt ggaatgagag cgctgcaggt gcgcaccggg
720
aagttcaggc ccagtgcaga gcaccatccg
750

```

<210> 6294  
 <211> 250  
 <212> PRT  
 <213> Homo sapiens

<400> 6294  
 Xaa Pro Gly Ala Met Ala Pro Trp Gly Lys Arg Leu Ala Gly Val Arg  
 1 5 10 15  
 Gly Val Leu Leu Asp Ile Ser Gly Val Leu Tyr Asp Ser Gly Ala Cys  
 20 25 30  
 Gly Gly Thr Ala Ile Ala Gly Ser Val Glu Ala Val Ala Arg Leu Lys  
 35 40 45  
 Arg Ser Arg Leu Lys Val Arg Phe Cys Thr Asn Glu Ser Gln Lys Ser  
 50 55 60  
 Arg Ala Glu Leu Val Gly Gln Leu Gln Arg Leu Gly Phe Asp Ile Ser  
 65 70 75 80  
 Glu Gln Glu Val Thr Ala Pro Ala Pro Ala Cys Gln Ile Leu Lys  
 85 90 95  
 Glu Arg Gly Leu Arg Pro Tyr Leu Leu Ile His Asp Gly Val Arg Ser  
 100 105 110  
 Glu Phe Asp Gln Ile Asp Thr Ser Asn Pro Asn Cys Val Val Ile Ala  
 115 120 125  
 Asp Ala Gly Glu Ser Phe Ser Tyr Gln Asn Met Asn Asn Ala Phe Gln  
 130 135 140  
 Val Leu Met Glu Leu Glu Lys Pro Val Leu Ile Ser Leu Gly Lys Gly  
 145 150 155 160  
 Arg Tyr Tyr Lys Glu Thr Ser Gly Leu Met Leu Asp Val Gly Pro Tyr  
 165 170 175  
 Met Lys Ala Leu Glu Tyr Ala Cys Gly Ile Lys Ala Glu Val Val Gly  
 180 185 190  
 Lys Pro Ser Pro Glu Phe Phe Lys Ser Ala Leu Gln Ala Ile Gly Val  
 195 200 205  
 Glu Ala His Gln Ala Val Met Ile Gly Asp Asp Ile Val Gly Asp Val  
 210 215 220  
 Gly Gly Ala Gln Arg Cys Gly Met Arg Ala Leu Gln Val Arg Thr Gly  
 225 230 235 240  
 Lys Phe Arg Pro Ser Asp Glu His His Pro  
 245 250

<210> 6295  
 <211> 2091  
 <212> DNA  
 <213> Homo sapiens

<400> 6295  
 ggccgccccg ggcgggggtgg gaggcggagg cggggccggg gcgccgcggg cggggcgccg  
 60  
 ggggcggggc gagtcggag gactcctcgg actgcgcgga acatggcggt ctgggggttg  
 120  
 cgcgcccg cagccctccg gctgtggggc cgggtagttg aacgggtcga ggccggggga  
 180  
 ggcgtagggc cgtttcaggc ctgcggctgt cggctggtgc ttggcggcag ggacgatgtg  
 240

agtcgggggc tgagaggcag ccatgggggc cgcggtgagc ccttggaccc ggcgcgcccc  
300  
ttgcagaggg cteccagacc cgagggtgccc agggcattcc ggaggcagcc gagggcagca  
360  
gctcccagtt tcttcttttc gagtattaaa ggtggaagaa ggtccatata ttttctctgtg  
420  
ggtgcttcaa gtgtgtgttg aagtggaggc agcagtgaca aggggaagct ttccctgcag  
480  
gatgtagctg agctgattcg ggccagagcc tgccagaggg tgggtggtcat ggtggggggc  
540  
ggcatcagca caccagtggt cattccagac ttcagatcgc cggggagtgg cctgtacagc  
600  
aacctccagc agtacgatct cccgtacccc gaggccattt ttgaactccc attcttcttt  
660  
cacaacccca agcccttttt cactttggcc aaggagctgt accctggaaa ctacaagccc  
720  
aacgtcactc actactttct cggctgctt catgacaagg ggtctcttct gcgctctac  
780  
acgcagaaca tcgatgggct tgagagagtg tcgggcatcc ctgcctcaaa gctggttgaa  
840  
gctcatggaa cctttgcctc tgccacctgc acagtctgcc aaagaccctt cccaggggag  
900  
gacattcggg ctgacgtgat ggccagacag gttccccgct gcccggtctg caccggcggt  
960  
gtgaagcccc acattgtgtt ctttggggag ccgctgcccc agaggttctt gctgcatgtg  
1020  
gttgatttcc ccatggcaga tctgctgctc atccttggga cctccctgga ggtggagcct  
1080  
tttgccagct tgaccgaggg cgtgcggagc tcagttcccc gactgctcat caaccgggac  
1140  
ttggtggggc ccttggtctg gcacccctgc agcagggagc tggccagct gggggacgtg  
1200  
gttcacggcg tggaaagcct agtggagctt ctgggctgga cagaagagat gcgggacctt  
1260  
gtgcagcggg aaactgggaa gcttgatgga ccagacaaat aggatgatgg cttgaccgag  
1320  
gccgtgcgga cgtcagttcc ccgactgctc atcaaccggg acttggtggg gcccttggct  
1380  
tggcatcctc gcagcagggc cgtggcccag ctgggggacg tgggtcacgg cgtggaaagc  
1440  
ctagtggagc ttctgggctg gacagaagag atgcgggacc ttgtgcagcg ggaaactggg  
1500  
aagcttgatg gaccagacaa ataggatgat ggctgcccc acacaataaa tggtaacata  
1560  
ggagacatcc acatcccaat tctgacaaga cctcatgcct gaagacagct tgggcaggtg  
1620  
aaaccagaat atgtgaactg agtggacacc cgaggctgcc actggaatgt cttctcaggc  
1680  
catgactgac agtgactggt agggctgtgt ttacagtacg ggccaccccg tcacatatac  
1740  
aaaggagctg cctgcctgtt tgctgtgttg aactcttcac tctgctgaag ctctaatgg  
1800  
aaaaagcttt cttctgactg tgaccctctt gaactgaatc agaccaactg gaatcccaga  
1860

ccgagctctgc tttctgtgcc tagttgaacg gcaagctcgg catctgttgg ttacaagatc  
 1920  
 cagacttggg ccgagcggtc cccagccctc ttcattgttc gaagtgtagt cttgaggccc  
 1980  
 tgggtccgca cttctagcat gttggtctcc tttagtgggg ctatttttaa tgagagaaaa  
 2040  
 tctgttcttt ccagcatgaa atacatttag tctcctcaaa aaaaaaaaaa a  
 2091

<210> 6296

<211> 399

<212> PRT

<213> Homo sapiens

<400> 6296

Met Ala Phe Trp Gly Trp Arg Ala Ala Ala Ala Leu Arg Leu Trp Gly  
 1 5 10 15  
 Arg Val Val Glu Arg Val Glu Ala Gly Gly Val Gly Pro Phe Gln  
 20 25 30  
 Ala Cys Gly Cys Arg Leu Val Leu Gly Gly Arg Asp Asp Val Ser Ala  
 35 40 45  
 Gly Leu Arg Gly Ser His Gly Ala Arg Gly Glu Pro Leu Asp Pro Ala  
 50 55 60  
 Arg Pro Leu Gln Arg Pro Pro Arg Pro Glu Val Pro Arg Ala Phe Arg  
 65 70 75 80  
 Arg Gln Pro Arg Ala Ala Ala Pro Ser Phe Phe Phe Ser Ser Ile Lys  
 85 90 95  
 Gly Gly Arg Arg Ser Ile Ser Phe Ser Val Gly Ala Ser Ser Val Val  
 100 105 110  
 Gly Ser Gly Gly Ser Ser Asp Lys Gly Lys Leu Ser Leu Gln Asp Val  
 115 120 125  
 Ala Glu Leu Ile Arg Ala Arg Ala Cys Gln Arg Val Val Val Met Val  
 130 135 140  
 Gly Ala Gly Ile Ser Thr Pro Ser Gly Ile Pro Asp Phe Arg Ser Pro  
 145 150 155 160  
 Gly Ser Gly Leu Tyr Ser Asn Leu Gln Gln Tyr Asp Leu Pro Tyr Pro  
 165 170 175  
 Glu Ala Ile Phe Glu Leu Pro Phe Phe Phe His Asn Pro Lys Pro Phe  
 180 185 190  
 Phe Thr Leu Ala Lys Glu Leu Tyr Pro Gly Asn Tyr Lys Pro Asn Val  
 195 200 205  
 Thr His Tyr Phe Leu Arg Leu Leu His Asp Lys Gly Leu Leu Leu Arg  
 210 215 220  
 Leu Tyr Thr Gln Asn Ile Asp Gly Leu Glu Arg Val Ser Gly Ile Pro  
 225 230 235 240  
 Ala Ser Lys Leu Val Glu Ala His Gly Thr Phe Ala Ser Ala Thr Cys  
 245 250 255  
 Thr Val Cys Gln Arg Pro Phe Pro Gly Glu Asp Ile Arg Ala Asp Val  
 260 265 270  
 Met Ala Asp Arg Val Pro Arg Cys Pro Val Cys Thr Gly Val Val Lys  
 275 280 285  
 Pro Asp Ile Val Phe Phe Gly Glu Pro Leu Pro Gln Arg Phe Leu Leu  
 290 295 300  
 His Val Val Asp Phe Pro Met Ala Asp Leu Leu Leu Ile Leu Gly Thr

```

305          310          315          320
Ser Leu Glu Val Glu Pro Phe Ala Ser Leu Thr Glu Ala Val Arg Ser
          325          330          335
Ser Val Pro Arg Leu Leu Ile Asn Arg Asp Leu Val Gly Pro Leu Ala
          340          345          350
Trp His Pro Arg Ser Arg Asp Val Ala Gln Leu Gly Asp Val Val His
          355          360          365
Gly Val Glu Ser Leu Val Glu Leu Leu Gly Trp Thr Glu Glu Met Arg
          370          375          380
Asp Leu Val Gln Arg Glu Thr Gly Lys Leu Asp Gly Pro Asp Lys
385          390          395

```

&lt;210&gt; 6297

&lt;211&gt; 472

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6297

```

ngggggccgct ggccgagagg ctgaggcggc gtcatgtcct ccgaggtgtc cgcgcgcccgc
60
gacgccaaaga agctggtgcg ctccccgagc ggcctgcgca tggtgcccga acaccgcgcc
120
ttcgggaagcc cgctcgccct ggaggagccg cagtgggtcc cggacaagga gtgtcggaga
180
tgtatgcagt gtgacgcaa gtttgacttt ctcaccagaa agcaccactg tcgccgctgc
240
gggaagtgtct tctgcgacag gtgctgcagc cagaaggtgc cgctgcggcg catgtgcttt
300
gtggaccccg tgcggcagtg cgcggagtgc gccctggtgt cctcaagga ggcggagttc
360
tacgacaagc agctcaaagt gctcctgagc ggtaaggacg ggtgtcctgc acagtctctgc
420
gcgctccgcc agcgggctcc tcgtgtctgt ggcgatgctg tgggctgtgc ac
472

```

&lt;210&gt; 6298

&lt;211&gt; 146

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6298

```

Met Ser Ser Glu Val Ser Ala Arg Arg Asp Ala Lys Lys Leu Val Arg
1          5          10          15
Ser Pro Ser Gly Leu Arg Met Val Pro Glu His Arg Ala Phe Gly Ser
          20          25          30
Pro Phe Gly Leu Glu Glu Pro Gln Trp Val Pro Asp Lys Glu Cys Arg
          35          40          45
Arg Cys Met Gln Cys Asp Ala Lys Phe Asp Phe Leu Thr Arg Lys His
          50          55          60
His Cys Arg Arg Cys Gly Lys Cys Phe Cys Asp Arg Cys Cys Ser Gln
65          70          75          80
Lys Val Pro Leu Arg Arg Met Cys Phe Val Asp Pro Val Arg Gln Cys
          85          90          95
Ala Glu Cys Ala Leu Val Ser Leu Lys Glu Ala Glu Phe Tyr Asp Lys

```

100 105 110  
 Gln Leu Lys Val Leu Leu Ser Gly Lys Asp Gly Cys Pro Ala Gln Ser  
 115 120 125  
 Cys Ala Leu Arg Gln Pro Ala Pro Arg Val Cys Gly Asp Ala Val Gly  
 130 135 140  
 Cys Ala  
 145

<210> 6299

<211> 1466

<212> DNA

<213> Homo sapiens

<400> 6299

ctgattccgg gctgtcatgg cgacccccaa caatctgacc cccaccaact gcagctgggtg  
 60  
 gcccatctcc gcgctggaga gcgatgcggc caagccagcg gaggcccccg acgtccccga  
 120  
 ggcgggcagc ccgcccattg gcccaggag agcctggttc tgtaccactg gaccagttcc  
 180  
 ttcagctcgc agaaggtgcg gctgggtatc gccgagaagg gcctgggtgtg cgaggagcgg  
 240  
 gacgtgagcc tgccacagag cgagcacaag gagccctggt tcatgcggt caacctgggc  
 300  
 gaggaggtgc ccgtcatcat ccaccgcgac aacatcatca gtgactatga ccagatcatt  
 360  
 gactatgtgg agcgcacctt cacaggagag cacgtggtgg ccctgatgcc cgagggtggc  
 420  
 agcctgcagc acgcacgggt gctgcagtac cgggagctgc tggacgact gcccatggat  
 480  
 gcctacacgc atggctgcat cctgcatccc gagctacca ccgactccat gatccccaa  
 540  
 tacgccacgg ccgagatccg cagacattta gccaatgcc ccacggacct catgaaactg  
 600  
 gaccatgaag aggagcccca gctctccgag ccctaccttt ctaaacaaaa gaagctcatg  
 660  
 gccaaagatct tggagcatga tgatgtgagc tacctgaaga agatcctcgg ggaactggcc  
 720  
 atgggtgctgg accagattga ggcggagctg gagaagagga agctggagaa cgaggggagc  
 780  
 aaatgcgagc tgtggctctg tggctgtgcc ttcacctcgt ctgatgtcct cctgggagcc  
 840  
 accctgcacc gcctcaagtt cctgggactg tccaagaaat actgggaaga tggcagccgg  
 900  
 cccaacctgc agtccttctt tgagaggggc cagagacgct ttgccttccg gaaagtcctg  
 960  
 ggtgacatcc acaccacct gctgtcggcc gtcacccca atgctttccg gctgggtcaag  
 1020  
 aggaaaacccc catccttctt cggggcgctc ttcctcatgg gtcctcctgg tgggatgggc  
 1080  
 tactttgcct actggtacct caagaaaaaa tacatctagg gccaggcctg gggcttgggtg  
 1140  
 tctgactgtc ggtgtctctg tgctgtgtga tccccgtga gctctcagta actcactgtc  
 1200



tcataaacac ttggacagcc ctccccgccc ttcgttctga gtaataatac cgtcagtgtg  
 1260  
 aaaacattcc gtagtttaga agtagacggt gcaaatgctg tgactcaagg ccacggctct  
 1320  
 gctaaaagag agagaaggaa cgagagagag agagaaaaaa caaaaaacca gaaaaccacg  
 1380  
 aatgcctttt tctatcgatt tcaaggtctc aagatgggaa ctgtgggaga ctggggttagg  
 1440  
 atctgagggg aactctttca caggga  
 1466

<210> 6300  
 <211> 372  
 <212> PRT  
 <213> Homo sapiens

<400> 6300  
 Leu Ile Pro Gly Cys His Gly Asp Pro Gln Gln Ser Asp Pro His Gln  
 1 5 10 15  
 Leu Gln Leu Val Ala His Leu Arg Ala Gly Glu Arg Cys Gly Gln Ala  
 20 25 30  
 Ser Gly Gly Pro Arg Arg Ser Arg Gly Gly Gln Pro Ala His Trp Pro  
 35 40 45  
 Arg Glu Ser Leu Val Leu Tyr His Trp Thr Gln Ser Phe Ser Ser Gln  
 50 55 60  
 Lys Val Arg Leu Val Ile Ala Glu Lys Gly Leu Val Cys Glu Glu Arg  
 65 70 75 80  
 Asp Val Ser Leu Pro Gln Ser Glu His Lys Glu Pro Trp Phe Met Arg  
 85 90 95  
 Leu Asn Leu Gly Glu Glu Val Pro Val Ile Ile His Arg Asp Asn Ile  
 100 105 110  
 Ile Ser Asp Tyr Asp Gln Ile Ile Asp Tyr Val Glu Arg Thr Phe Thr  
 115 120 125  
 Gly Glu His Val Val Ala Leu Met Pro Glu Val Gly Ser Leu Gln His  
 130 135 140  
 Ala Arg Val Leu Gln Tyr Arg Glu Leu Leu Asp Ala Leu Pro Met Asp  
 145 150 155 160  
 Ala Tyr Thr His Gly Cys Ile Leu His Pro Glu Leu Thr Thr Asp Ser  
 165 170 175  
 Met Ile Pro Lys Tyr Ala Thr Ala Glu Ile Arg Arg His Leu Ala Asn  
 180 185 190  
 Ala Thr Thr Asp Leu Met Lys Leu Asp His Glu Glu Glu Pro Gln Leu  
 195 200 205  
 Ser Glu Pro Tyr Leu Ser Lys Gln Lys Lys Leu Met Ala Lys Ile Leu  
 210 215 220  
 Glu His Asp Asp Val Ser Tyr Leu Lys Lys Ile Leu Gly Glu Leu Ala  
 225 230 235 240  
 Met Val Leu Asp Gln Ile Glu Ala Glu Leu Glu Lys Arg Lys Leu Glu  
 245 250 255  
 Asn Glu Gly Gln Lys Cys Glu Leu Trp Leu Cys Gly Cys Ala Phe Thr  
 260 265 270  
 Leu Ala Asp Val Leu Leu Gly Ala Thr Leu His Arg Leu Lys Phe Leu  
 275 280 285  
 Gly Leu Ser Lys Lys Tyr Trp Glu Asp Gly Ser Arg Pro Asn Leu Gln

```

      290              295              300
Ser Phe Phe Glu Arg Val Gln Arg Arg Phe Ala Phe Arg Lys Val Leu
305              310              315              320
Gly Asp Ile His Thr Thr Leu Leu Ser Ala Val Ile Pro Asn Ala Phe
      325              330              335
Arg Leu Val Lys Arg Lys Pro Pro Ser Phe Phe Gly Ala Ser Phe Leu
      340              345              350
Met Gly Ser Leu Gly Gly Met Gly Tyr Phe Ala Tyr Trp Tyr Leu Lys
      355              360              365
Lys Lys Tyr Ile
      370

```

```

<210> 6301
<211> 911
<212> DNA
<213> Homo sapiens

```

```

<400> 6301
nnacgggttt tagaaaaaca agaattacag cagccaacct atgttgcctt gagttacata
60
aatagattca tgacagatgc tgcccgccga gagcaggagt ccctaaagaa gaagattcag
120
ccgaagctct cgctgactct gtccagctca gtgtctcgag ggaatgtgtc cactccccc
180
cgccacagca gtggaagcct tactcccccc gtgacccccc ccatcaccac ctctctttca
240
ttccgcagca gcactccgac aggcagcgag tatgacgagg aggaggtgga ctatgaggag
300
tcggacagcg atgagtcctg gaccacagag agtgccatca gctccgaagc catcctcagc
360
tccatgtgca tgaatggagg ggaagagaag ccttttgcct gccagttccc tggatgtaaa
420
aagagataca agaattgtgaa tggcataaag tatcacgcta agaattgtca cagaacacag
480
attcgtgtcc gcaaaccatt caagtgtcgc tgtgggaaga gttacaagac agctcagggc
540
ctgcggcacc acacaatcaa ttccatccc ccggtgtcgg ctgagattat caggaagatg
600
cagcaataac atgctgggtca taactgtgcc aagaaatcct caccagcagt tgctgatttt
660
gaaaacagcc accttttttc aggggaagca ttcagcaacc ctttaaagaa aaagaattaa
720
atgcatgctt taaatttttt ctgtaatttt ggaatgatgt atctttgtag agttaatgat
780
ttgtacatt tgcacatgta atcatcatc ccattttcat tactttgata taagggtgcta
840
aacaaaaaaa gctctagggt cttcagcaca tttcccccaa aacaaaaataa aattgagggg
900
atgttgcaaa a
911

```

```

<210> 6302
<211> 202
<212> PRT

```

&lt;213&gt; Homo sapiens

&lt;400&gt; 6302

```

Xaa Arg Val Leu Glu Lys Gln Glu Leu Gln Gln Pro Thr Tyr Val Ala
 1           5           10           15
Leu Ser Tyr Ile Asn Arg Phe Met Thr Asp Ala Ala Arg Arg Glu Gln
 20           25           30
Glu Ser Leu Lys Lys Lys Ile Gln Pro Lys Leu Ser Leu Thr Leu Ser
 35           40           45
Ser Ser Val Ser Arg Gly Asn Val Ser Thr Pro Pro Arg His Ser Ser
 50           55           60
Gly Ser Leu Thr Pro Pro Val Thr Pro Pro Ile Thr Pro Ser Ser Ser
 65           70           75           80
Phe Arg Ser Ser Thr Pro Thr Gly Ser Glu Tyr Asp Glu Glu Glu Val
 85           90           95
Asp Tyr Glu Glu Ser Asp Ser Asp Glu Ser Trp Thr Thr Glu Ser Ala
100          105          110
Ile Ser Ser Glu Ala Ile Leu Ser Ser Met Cys Met Asn Gly Gly Glu
115          120          125
Glu Lys Pro Phe Ala Cys Pro Val Pro Gly Cys Lys Lys Arg Tyr Lys
130          135          140
Asn Val Asn Gly Ile Lys Tyr His Ala Lys Asn Gly His Arg Thr Gln
145          150          155          160
Ile Arg Val Arg Lys Pro Phe Lys Cys Arg Cys Gly Lys Ser Tyr Lys
165          170          175
Thr Ala Gln Gly Leu Arg His His Thr Ile Asn Phe His Pro Pro Val
180          185          190
Ser Ala Glu Ile Ile Arg Lys Met Gln Gln
195          200

```

&lt;210&gt; 6303

&lt;211&gt; 676

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6303

```

aaagttcatg ttgttgatct aaaggcagaa tctgtagctg ctctataac tgttcgtgct
60
tacttaaatc agacagttac agaattcaaa caactgattt caaaggccat ccatttacct
120
gctgaaacaa tgagaatagt gctggaacgc tgctacaatg atttgcgtct tctcagtgtc
180
tccagtaaaa ccctgaaagc tgaaggattt tttagaagta acaagggtgtt tgttgaaagc
240
tccgagactt tggattacca gatggccttt gcagactctc atttatggaa actcctggat
300
cggcatgcaa atacaatcag attatttggt ttgctacctg aacaatcccc agtatcttat
360
tccaaaagga cagcatacca gaaagctgga ggcgattctg gtaatgtgga tgatgactgt
420
gaaagagtca aaggacctgt aggaagccta aagtctgtgg aagctattct agaagaaagc
480
actgaaaaac tcaaaagctt gtcactgcag caacagcagg atggagataa tggggacagc
540

```

agcaaaagta ctgagacaag tgactttgaa aacatcgaa cacctctcaa tgagaggac  
 600  
 tcttcagcat cagtgataa tagagaactt gaacagcata ttcagacttc tgatccagaa  
 660  
 aaattttcag tctgaa  
 676

<210> 6304  
 <211> 181  
 <212> PRT  
 <213> Homo sapiens

<400> 6304  
 Met Arg Ile Val Leu Glu Arg Cys Tyr Asn Asp Leu Arg Leu Leu Ser  
 1 5 10 15  
 Val Ser Ser Lys Thr Leu Lys Ala Glu Gly Phe Phe Arg Ser Asn Lys  
 20 25 30  
 Val Phe Val Glu Ser Ser Glu Thr Leu Asp Tyr Gln Met Ala Phe Ala  
 35 40 45  
 Asp Ser His Leu Trp Lys Leu Leu Asp Arg His Ala Asn Thr Ile Arg  
 50 55 60  
 Leu Phe Val Leu Leu Pro Glu Gln Ser Pro Val Ser Tyr Ser Lys Arg  
 65 70 75 80  
 Thr Ala Tyr Gln Lys Ala Gly Gly Asp Ser Gly Asn Val Asp Asp Asp  
 85 90 95  
 Cys Glu Arg Val Lys Gly Pro Val Gly Ser Leu Lys Ser Val Glu Ala  
 100 105 110  
 Ile Leu Glu Glu Ser Thr Glu Lys Leu Lys Ser Leu Ser Leu Gln Gln  
 115 120 125  
 Gln Gln Asp Gly Asp Asn Gly Asp Ser Ser Lys Ser Thr Glu Thr Ser  
 130 135 140  
 Asp Phe Glu Asn Ile Glu Ser Pro Leu Asn Glu Arg Asp Ser Ser Ala  
 145 150 155 160  
 Ser Val Asp Asn Arg Glu Leu Glu Gln His Ile Gln Thr Ser Asp Pro  
 165 170 175  
 Glu Lys Phe Ser Val  
 180

<210> 6305  
 <211> 3853  
 <212> DNA  
 <213> Homo sapiens

<400> 6305  
 cagtgccagg ctggaggcgg cagcgggttg aggccttcgcc cggctttgca gcggggactt  
 60  
 cggcggcggc gcctcaggca cctcggcccg gacacgatga ggcgagtggt ccggcagagc  
 120  
 aaattccggc atgtgttcgg gcagccggtc aagaacgacc agtgctatga ggacattcgc  
 180  
 gtgtcccggtg ttacctggga cagcaccttc tgcgccgtca accccaagtt cctggcgggtg  
 240  
 attgtggagg ccagtggagg ggggtgccttt ctgggtgctcc ccctaagcaa gacggggccgc  
 300

attgacaagg cctaccctac agtatgtggg cacacaggac cagtgtctgga catcgactgg  
360  
tgcccacata acgatcaggt cattgccagc gggttcagagg actgcacggt catgggtatgg  
420  
cagatcccag aaaatggact cacctccccg ctgacagagc cgggtggtggt actggagggg  
480  
cacaccaagc gagtgggcat catcgcttgg caccacacgg ccgaaacgt gctgctcagt  
540  
gcaggctgcg acaacgtggt actcatctgg aatgtgggca cagcggagga gctgtaccgc  
600  
ctggacagcc tgcaccctga cctcatctac aatgtcagct ggaaccacaa tggcagcctg  
660  
ttttgtctag catgcaagga caagagcgtg cgcacatcgc acccccgtcg gggcaccttg  
720  
gtggcagagc gggagaaggc tcatgagggg gcccggccca tgcgggcat ctctctggca  
780  
gatggcaagg tgttcaccac aggcttcagc cgaatgagcg agcggcagct ggcgctctgg  
840  
aatccgaaaa atatgcagga accaattgct ctctcatgaga tggacactag caatggggtg  
900  
ttgtgcctt tctatgacct tgacaccagc atcatttact tatgtggaaa ggggtgacagc  
960  
agtattcgct attttgagat caccgatgaa tccccgtacg tccactacct caacacattc  
1020  
agcagcaagg agcctcagag agggatgggt tacatgccca agaggggact tgatgttaac  
1080  
aaatgtgaga ttgccagatt cttcaaactt catgagagaa agtgtgaacc tattattatg  
1140  
actgttccca ggaagtctga cctttttccaa gatgacctgt atcctgacac agcggggcca  
1200  
gaggccgcg cggaggcaga agagtgttc gaaggcaaga atgcagaccc aatcctcatc  
1260  
tccttgaagc acgggtacat tccaggcaaa aacagggatc tcaagggtgt caagaagaac  
1320  
attctggata gcaagccac tgcaacaag aagtgcgacc tgatcagcat cccaagaaa  
1380  
accacagaca cggccagtgt gcaaaatgaa gccaaagtgg atgagatttt aaaagagatc  
1440  
aaatctataa aagacacaat ctgcaatcaa gatgagcgta tttccaagtt agaacagcag  
1500  
atggcaaaga tagcagcctg aagggtccac cccacccct acagaaaaaa tgggagcaag  
1560  
aacttgtgct tgggagctgg ttattggtgt ggtcctaggg agggcggaag gggaggcact  
1620  
gccatttggg gacattccat ttcagatttg tcaaccagcg ataggccaca ttccagtaag  
1680  
aactcaattt gtctcccaaa tttgcagaaa caaaacgtga tttaaaagct gagcttttta  
1740  
tcagaaaagct tttttgatgt ttttaagtgt atgtgacttg ttgaactttt taaaagtg  
1800  
tacttttaaa atcccagata ctctgaattt tagaaaaaa actaattctg attgtgtcgt  
1860  
gcccaagtac cttttttttt ttaatgaata gggaccaatg ccacattgct ttttatattt  
1920

ctttcttttt taatgttgcc aaaacccaaa gtagctttgt tttcctttgt attttgctac  
1980  
tttgcagtat ttgtgtgtgt gggttttttt ccttaatttg aaagggacag cactgtgtat  
2040  
gtttataaac taaatgaaga taagatatta ttttgataaa acattcatct gagaacaatc  
2100  
aaagcagtag ccacatgggt ctggctcctt tgcagcacia acctgggtcat tttgatgact  
2160  
gtacaacagg aagacttgaa aaatcacgtg gattcatatt accaccgtc tcatttcagt  
2220  
gagtcttctg atcaaaaaag ctacgtcgt atttcttctt ttcctttctc ttttctagaa  
2280  
attgggtggt tgtaccagaa tggaattttg cttctcggtt atcctgtgct tcagatgatt  
2340  
ataatctaac ccaaactage atgtgtttct gcagtttgtt acacacctag gatcatattg  
2400  
cattcatcac tttaaacatc atgtttcagg ttttggtaaa tacttgacaa ggggtgccag  
2460  
gacaggaaga cgtgtactgc tgagtgttcc ttcttgccct tttcagcagc ttgccagct  
2520  
cttgagtaca gtggtgggga ctaaaaatgt gggcatgtgg agaggggtat ttgccctggg  
2580  
tgatcctggt tccctgtgct gtcccatgc tgtgttgagg gaggaagtgg ctctccttcc  
2640  
accaacaaag ctctgtctct accctcttcc tcacatgtgc tgcgacctct ctccgggtc  
2700  
cccagccat tccttcttcc cttcctgcct tttagctcta accacattaa gctaagacaa  
2760  
ggccagaggg tgcgattgaa tgagtattga gactgaggag aatgatagag agtgaagcag  
2820  
aaacaggagc gcagacctct gctgtagctt taatgcatac aaacatgtcc ctccgcacia  
2880  
ctaacctgcc ctgctcttcc atctcgacc aaggctgctt caaagcacag aggtctcccc  
2940  
gactcggagg gggccagaga ctgagctctg gtcacctgtt cattcctcgg ttagctggaa  
3000  
ctttgccccg tttccagttt cttatagtgc atgcttggga aacaagattt aaggagcctc  
3060  
tgttttggaa gggctgtctg tgattgaacg tgaatgtgt agtgccattg ggaccacgaa  
3120  
gggaattctt gcacatgtc gtgctggtgt gggcatggga ctggctggaa acgtctgtat  
3180  
gcagggagcc agggtagagg cagagtgtgg tgacagccga acttgagta atgtccgtgt  
3240  
agaaaaagga ccatgttctt atccagccaa tactgggagt gctgtctcca caatttcagg  
3300  
gcatctgaat gtttgatgtg gttttgtgtg tgtgtatgta tgtgtttaat attgaagtgg  
3360  
atcatgagat gtaaaagaaa caataatggc aatgacttat attcaaactt gtatttgttt  
3420  
ctttatcaat gtaatctgct gaggacctt tgtctaagat tcagtagtgt ttaaggttc  
3480  
tgatatcgaa ttaatgaagt aaagtgttg atgggtgtga aacaccgtag ggcatgtggt  
3540

tcaaagagaa gcaggagggc aagggaagt taccctgatc ttagtttgta gcttatgact  
 3600  
 tatttaatga atggatgccc agccaagctc agagtaggcg cccaaagcat tgtggattat  
 3660  
 tttcctggtt tgtctttttt tttttttttt ttaagccatg acatcccaga agaggacagt  
 3720  
 gaattactcc taggtcggct cttatagagt ggccatagtg ttctgtcaaa acacttgctt  
 3780  
 ccatttttcag agataaaaaa cattgattac aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa  
 3840  
 aaaaaaaaaa aaa  
 3853

<210> 6306

<211> 474

<212> PRT

<213> Homo sapiens

<400> 6306

Met	Arg	Arg	Val	Val	Arg	Gln	Ser	Lys	Phe	Arg	His	Val	Phe	Gly	Gln
1			5						10					15	
Pro	Val	Lys	Asn	Asp	Gln	Cys	Tyr	Glu	Asp	Ile	Arg	Val	Ser	Arg	Val
			20					25					30		
Thr	Trp	Asp	Ser	Thr	Phe	Cys	Ala	Val	Asn	Pro	Lys	Phe	Leu	Ala	Val
			35				40					45			
Ile	Val	Glu	Ala	Ser	Gly	Gly	Gly	Ala	Phe	Leu	Val	Leu	Pro	Leu	Ser
			50			55					60				
Lys	Thr	Gly	Arg	Ile	Asp	Lys	Ala	Tyr	Pro	Thr	Val	Cys	Gly	His	Thr
65					70				75					80	
Gly	Pro	Val	Leu	Asp	Ile	Asp	Trp	Cys	Pro	His	Asn	Asp	Gln	Val	Ile
				85					90					95	
Ala	Ser	Gly	Ser	Glu	Asp	Cys	Thr	Val	Met	Val	Trp	Gln	Ile	Pro	Glu
				100				105					110		
Asn	Gly	Leu	Thr	Ser	Pro	Leu	Thr	Glu	Pro	Val	Val	Val	Leu	Glu	Gly
			115				120					125			
His	Thr	Lys	Arg	Val	Gly	Ile	Ile	Ala	Trp	His	Pro	Thr	Ala	Arg	Asn
				130		135					140				
Val	Leu	Leu	Ser	Ala	Gly	Cys	Asp	Asn	Val	Val	Leu	Ile	Trp	Asn	Val
145					150				155					160	
Gly	Thr	Ala	Glu	Glu	Leu	Tyr	Arg	Leu	Asp	Ser	Leu	His	Pro	Asp	Leu
				165					170					175	
Ile	Tyr	Asn	Val	Ser	Trp	Asn	His	Asn	Gly	Ser	Leu	Phe	Cys	Ser	Ala
			180				185					190			
Cys	Lys	Asp	Lys	Ser	Val	Arg	Ile	Ile	Asp	Pro	Arg	Arg	Gly	Thr	Leu
		195					200					205			
Val	Ala	Glu	Arg	Glu	Lys	Ala	His	Glu	Gly	Ala	Arg	Pro	Met	Arg	Ala
			210			215					220				
Ile	Phe	Leu	Ala	Asp	Gly	Lys	Val	Phe	Thr	Thr	Gly	Phe	Ser	Arg	Met
225					230				235					240	
Ser	Glu	Arg	Gln	Leu	Ala	Leu	Trp	Asn	Pro	Lys	Asn	Met	Gln	Glu	Pro
				245					250					255	
Ile	Ala	Leu	His	Glu	Met	Asp	Thr	Ser	Asn	Gly	Val	Leu	Leu	Pro	Phe
			260				265					270			
Tyr	Asp	Pro	Asp	Thr	Ser	Ile	Ile	Tyr	Leu	Cys	Gly	Lys	Gly	Asp	Ser

```

      275      280      285
Ser Ile Arg Tyr Phe Glu Ile Thr Asp Glu Ser Pro Tyr Val His Tyr
 290      295      300
Leu Asn Thr Phe Ser Ser Lys Glu Pro Gln Arg Gly Met Gly Tyr Met
 305      310      315      320
Pro Lys Arg Gly Leu Asp Val Asn Lys Cys Glu Ile Ala Arg Phe Phe
      325      330      335
Lys Leu His Glu Arg Lys Cys Glu Pro Ile Ile Met Thr Val Pro Arg
      340      345      350
Lys Ser Asp Leu Phe Gln Asp Asp Leu Tyr Pro Asp Thr Ala Gly Pro
      355      360      365
Glu Ala Ala Leu Glu Ala Glu Glu Trp Phe Glu Gly Lys Asn Ala Asp
      370      375      380
Pro Ile Leu Ile Ser Leu Lys His Gly Tyr Ile Pro Gly Lys Asn Arg
      385      390      395      400
Asp Leu Lys Val Val Lys Lys Asn Ile Leu Asp Ser Lys Pro Thr Ala
      405      410      415
Asn Lys Lys Cys Asp Leu Ile Ser Ile Pro Lys Lys Thr Thr Asp Thr
      420      425      430
Ala Ser Val Gln Asn Glu Ala Lys Leu Asp Glu Ile Leu Lys Glu Ile
      435      440      445
Lys Ser Ile Lys Asp Thr Ile Cys Asn Gln Asp Glu Arg Ile Ser Lys
      450      455      460
Leu Glu Gln Gln Met Ala Lys Ile Ala Ala
465      470

```

&lt;210&gt; 6307

&lt;211&gt; 2119

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6307

```

nnctggcctt cttctacct gtgcggccct caacgtctcc ttggtgcggg acccgcttca
60
ctttcggctc ccggagtctc cctccactgc tcagacctct ggacctgaca ggagacgcct
120
acttggtctt gacgcggcgc cccagcccgg ctgtgtcccc ggcgccccgg accaccttcc
180
ctgccggctt tgggtgcggt gtgggggtccc gaggattcgc gagatttggt gaaagacatt
240
caagattacg aagtttagat gacaaaaatg gatatccgag gtgctgtgga tgctgctgtc
300
cccaccaata ttattgctgc caaggctgca gaagttcgtg caaacaagt caactggcaa
360
tcctatcttc agggacagat gatttctgct gaagattgtg agtttattca gaggtttgaa
420
atgaaacgaa gccctgaaga gaagcaagag atgcttcaaa ctgaaggcag ccagtgtgct
480
aaaacattta taaatctgat gactcatatc tgcaaagaac agaccgttca gtatatacta
540
actatggtgg atgatatgct gcaggaaaat catcagcgtg ttagcatttt ctttgactat
600
gcaagatgta gcaagaacac tgcgtggccc tactttctgc caatgttgaa tcgccaggat
660

```



cccttcactg ttcatatggc agcaagaatt attgccaagt tagcagcttg gggaaaaagaa  
720  
ctgatggaag gcagtgactt aaattactat ttcaattgga taaaaactca gctgagttca  
780  
cagaaactgc gtggtagcgg tgttgctgtt gaaacaggaa cagtctcttc aagtgatagt  
840  
tcgcagtatg tgcagtgcgt ggccgggtgt ttgcagctga tgctccgggt caatgagtac  
900  
cgctttgctt ggggtggaagc agatggggta aattgcataa tgggagtggt gagtaacaag  
960  
tgtggctttc agctccagta tcaaatgatt ttttcaatat ggctcctggc attcagtcct  
1020  
caaatgtgtg aacacctgcg gcgctataat atcattccag ttctgtctga tatecttcag  
1080  
gagtcctgtca aagagaaagt aacaagaatc attcttgtag catttcgtaa ctttttagaa  
1140  
aaatcaactg aaagagaaac tcgccaagaa tatgccctgg ctatgatcca gtgcaaagtt  
1200  
ctgaaacagt tggagaactt ggaacagcag aagtacgatg atgaagatat cagcgaagat  
1260  
atcaaatttc ttttggaata acttgagag agtggtccagg accttagttc atttgatgaa  
1320  
tacagttcag aacttaaatc tgggaaggtg gaatggagtc ctgtgcacaa atctgagaaa  
1380  
ttttggagag agaatgctgt gaggttaaat gagaagaatt atgaactctt gaaaatcttg  
1440  
acaaaacttt tggaaagtgc agatgatccc caagtcttag ctgttgctgc tcacgatgtt  
1500  
ggagaatatg tgcggcatta tccacgaggc aaacgggtca tcgagcagct cgggtgggaag  
1560  
cagctgggtca tgaaccacat gcatcatgaa gaccagcagg tccgctataa tgctctgctg  
1620  
gccgtgcaga agctcatggt gcacaactgg gaataccttg gcaagcagct ccagtcagag  
1680  
cagccccaga ccgctgccgc ccgaagctaa gcctgcctct ggctctcccc tccgctcaa  
1740  
tgcagaacca gtagtgggag cactgtgttt agagttaaga gtgaacactg tttgatttta  
1800  
cttggaattt cctctgttat atagcttttc ccaatgctaa tttccaaaca acaacaaca  
1860  
aataacatgt ttgcctgtta agttgtataa aagtaggtga ttctgtattt aaagaaaata  
1920  
tactgttac atatactgct tgcaatttct gtatttattg ttctctggaa ataaatatag  
1980  
ttattaaagg attctcactc caaacatggc ctctctcttt acttggaact tgaacaaaag  
2040  
tcaactgttg tctcttttca aaccaaattg ggagaattgt tgcaaagtag tgaatggcaa  
2100  
ataaatgttt taaaatcta  
2119

&lt;210&gt; 6308

&lt;211&gt; 483

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6308

```

Met Thr Lys Met Asp Ile Arg Gly Ala Val Asp Ala Ala Val Pro Thr
 1          5          10          15
Asn Ile Ile Ala Ala Lys Ala Ala Glu Val Arg Ala Asn Lys Val Asn
 20          25          30
Trp Gln Ser Tyr Leu Gln Gly Gln Met Ile Ser Ala Glu Asp Cys Glu
 35          40          45
Phe Ile Gln Arg Phe Glu Met Lys Arg Ser Pro Glu Glu Lys Gln Glu
 50          55          60
Met Leu Gln Thr Glu Gly Ser Gln Cys Ala Lys Thr Phe Ile Asn Leu
 65          70          75          80
Met Thr His Ile Cys Lys Glu Gln Thr Val Gln Tyr Ile Leu Thr Met
 85          90          95
Val Asp Asp Met Leu Gln Glu Asn His Gln Arg Val Ser Ile Phe Phe
100          105          110
Asp Tyr Ala Arg Cys Ser Lys Asn Thr Ala Trp Pro Tyr Phe Leu Pro
115          120          125
Met Leu Asn Arg Gln Asp Pro Phe Thr Val His Met Ala Ala Arg Ile
130          135          140
Ile Ala Lys Leu Ala Ala Trp Gly Lys Glu Leu Met Glu Gly Ser Asp
145          150          155          160
Leu Asn Tyr Tyr Phe Asn Trp Ile Lys Thr Gln Leu Ser Ser Gln Lys
165          170          175
Leu Arg Gly Ser Gly Val Ala Val Glu Thr Gly Thr Val Ser Ser Ser
180          185          190
Asp Ser Ser Gln Tyr Val Gln Cys Val Ala Gly Cys Leu Gln Leu Met
195          200          205
Leu Arg Val Asn Glu Tyr Arg Phe Ala Trp Val Glu Ala Asp Gly Val
210          215          220
Asn Cys Ile Met Gly Val Leu Ser Asn Lys Cys Gly Phe Gln Leu Gln
225          230          235          240
Tyr Gln Met Ile Phe Ser Ile Trp Leu Leu Ala Phe Ser Pro Gln Met
245          250          255
Cys Glu His Leu Arg Arg Tyr Asn Ile Ile Pro Val Leu Ser Asp Ile
260          265          270
Leu Gln Glu Ser Val Lys Glu Lys Val Thr Arg Ile Ile Leu Ala Ala
275          280          285
Phe Arg Asn Phe Leu Glu Lys Ser Thr Glu Arg Glu Thr Arg Gln Glu
290          295          300
Tyr Ala Leu Ala Met Ile Gln Cys Lys Val Leu Lys Gln Leu Glu Asn
305          310          315          320
Leu Glu Gln Gln Lys Tyr Asp Asp Glu Asp Ile Ser Glu Asp Ile Lys
325          330          335
Phe Leu Leu Glu Lys Leu Gly Glu Ser Val Gln Asp Leu Ser Ser Phe
340          345          350
Asp Glu Tyr Ser Ser Glu Leu Lys Ser Gly Arg Leu Glu Trp Ser Pro
355          360          365
Val His Lys Ser Glu Lys Phe Trp Arg Glu Asn Ala Val Arg Leu Asn
370          375          380
Glu Lys Asn Tyr Glu Leu Leu Lys Ile Leu Thr Lys Leu Leu Glu Val
385          390          395          400
Ser Asp Asp Pro Gln Val Leu Ala Val Ala Ala His Asp Val Gly Glu

```

```

          405          410          415
Tyr Val Arg His Tyr Pro Arg Gly Lys Arg Val Ile Glu Gln Leu Gly
          420          425          430
Gly Lys Gln Leu Val Met Asn His Met His His Glu Asp Gln Gln Val
          435          440          445
Arg Tyr Asn Ala Leu Leu Ala Val Gln Lys Leu Met Val His Asn Trp
          450          455          460
Glu Tyr Leu Gly Lys Gln Leu Gln Ser Glu Gln Pro Gln Thr Ala Ala
465          470          475          480
Ala Arg Ser

```

<210> 6309  
 <211> 564  
 <212> DNA  
 <213> Homo sapiens

```

<400> 6309
cgcccgagcgttccacgggtg acatcgcaaa aggcgagggg gagacgcgcc cgcgggaccc
60
cttcccgggtg tgctcccacg tggcgtcgac cgggaagaag gggccggtag ggagcccttc
120
ccaggcgccct cccacgggggt tccccgcag ccgcgacacc accaacagtc gccgcaaccg
180
ccgcgtggaa cagacgaccc gggtctcaaa gaggcggcgc gggcgggacg cagcccttg
240
tccatctcgg gcgcgcctg atgcactcct actgcgccc ggctcctccc gcctgtctca
300
ctttgggggg ctcagggtcc tcacggggga cgctgcacg taagccagga cggcgttctg
360
caggaagctc gccctctggg cctcctcgtc ccggatgcgg gcgatctccg cctcccgag
420
ccgcagcttc tcccgagag acgcgttctc gctctccctg tccagcagcg cgatctgagc
480
tcactggaac ctccacctcc cagggtcgag tgattctcct gcctcagcct cctgagtagc
540
tggtattaca ggggtccacc acta
564

```

<210> 6310  
 <211> 83  
 <212> PRT  
 <213> Homo sapiens

```

<400> 6310
Cys Thr Pro Thr Ala Pro Gly Ser Ser Arg Pro Val Ser Leu Trp Gly
1      5      10      15
Ala Gln Gly Pro His Gly Gly Arg Leu His Val Ser Gln Asp Gly Val
20     25     30
Leu Gln Glu Ala Arg Pro Leu Gly Leu Leu Val Pro Asp Ala Gly Asp
35     40     45
Leu Arg Leu Pro Glu Pro Gln Leu Leu Pro Glu Arg Arg Val Leu Ala
50     55     60
Leu Pro Val Gln Gln Arg Asp Leu Ser Ser Leu Glu Pro Pro Pro Pro

```



gtcatgattt cctttcttag atttcatagg agatagtgtt ttaaaaaaa aaaaacttct  
 1380  
 attatttggt tagtatgttg taagtagatc attttaaaaa actgaatcta tattatgttt  
 1440  
 aacttcagaa ggcattcttt ataagacagt atggcagtta attataaaat tattttgatg  
 1500  
 aattatgata caatctacat aataaagaat ccttttgatt aaaaaaaa  
 1548

<210> 6312

<211> 234

<212> PRT

<213> Homo sapiens

<400> 6312

Gln	Gln	Gln	Ile	Ile	Ser	Gln	Leu	Ile	Phe	Gln	Phe	Thr	Lys	Glu	Ala
1				5					10					15	
Gln	Ile	Lys	Thr	Phe	Leu	Leu	His	Ser	His	Gly	Leu	Ala	His	Val	Trp
		20						25					30		
Leu	Asp	Glu	Tyr	Lys	Glu	Gln	Tyr	Phe	Ser	Leu	Arg	Pro	Asp	Leu	Lys
	35						40					45			
Thr	Lys	Ser	Tyr	Gly	Asn	Ile	Ser	Glu	Arg	Val	Glu	Leu	Arg	Lys	Lys
	50				55					60					
Leu	Gly	Cys	Lys	Ser	Phe	Lys	Trp	Tyr	Leu	Asp	Asn	Val	Tyr	Pro	Glu
65				70					75					80	
Met	Gln	Ile	Ser	Gly	Ser	His	Ala	Lys	Pro	Gln	Gln	Pro	Ile	Phe	Val
		85						90						95	
Asn	Arg	Gly	Pro	Lys	Arg	Pro	Lys	Val	Leu	Gln	Arg	Gly	Arg	Leu	Tyr
		100					105						110		
His	Leu	Gln	Thr	Asn	Lys	Cys	Leu	Val	Ala	Gln	Gly	Arg	Pro	Ser	Gln
	115					120					125				
Lys	Gly	Gly	Leu	Val	Val	Leu	Lys	Ala	Cys	Asp	Tyr	Ser	Asp	Pro	Asn
	130					135					140				
Gln	Ile	Trp	Ile	Tyr	Asn	Glu	Glu	His	Glu	Leu	Val	Leu	Asn	Ser	Leu
145				150					155					160	
Leu	Cys	Leu	Asp	Met	Ser	Glu	Thr	Arg	Ser	Ser	Asp	Pro	Pro	Arg	Leu
		165						170						175	
Met	Lys	Cys	His	Gly	Ser	Gly	Gly	Ser	Gln	His	Trp	Thr	Phe	Gly	Lys
		180						185					190		
Asn	Asn	Arg	Leu	Tyr	Gln	Val	Ser	Val	Gly	Gln	Cys	Leu	Arg	Ala	Val
	195					200					205				
Asp	Pro	Leu	Gly	Gln	Lys	Gly	Ser	Val	Ala	Met	Ala	Ile	Cys	Asp	Gly
	210				215						220				
Ser	Ser	Ser	Gln	Gln	Trp	His	Leu	Glu	Gly						
225					230										

<210> 6113

<211> 725

<212> DNA

<213> Homo sapiens

<400> 6113

tttttttttt tttttttttt tttttttttg gtaattaaca taatttatta cgcaaaaaat  
 60

gagaaaaat acagcaggag ggatgaggag tacacatagg aaatttctgt gattttcttc  
 120  
 attttgatcg tattgctttc ttgtcttcag gaggaagat ttcgacttca aaagtaacaa  
 180  
 aatatttaag aagagaattc acatctttct gttctagctg gtattcttgc attattttct  
 240  
 cagcagtcga ggtttctggg aaaagcttat gattattgag aagtgtcaat gcttctacaa  
 300  
 tggaaatttt gcctttggga atgctcttaa tatttatcat atcaaaatga tggctcttcg  
 360  
 gcaatctgaa ttccttcggc tcttgacatg tttcagcagc ttttacctgc aaggaagaca  
 420  
 caggatcttt ggaatcaaca tacacatctt ttagaaacga cagcagcttt tcatctttac  
 480  
 gagcaatctc tcctttaact tctggataga gactaatctg ctctcgagg aggctgttgg  
 540  
 tagaggggtg tctgggagcg acagagggct tcatcttgct gatttcccgt tccgctcggt  
 600  
 tctctaggtt gaaattcctg ataccgcgaa tcactagtgc tcccatctcc tcataacatt  
 660  
 atgcgctcag gtccaggcgc cactgtggaa caccggcgca ggacaactct cgggacaccc  
 720  
 ggagc  
 725

&lt;210&gt; 6314

&lt;211&gt; 175

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6314

Met	Gly	Ala	Leu	Val	Ile	Arg	Gly	Ile	Arg	Asn	Phe	Asn	Leu	Glu	Asn
1				5				10					15		
Arg	Ala	Glu	Arg	Glu	Ile	Ser	Lys	Met	Lys	Pro	Ser	Val	Ala	Pro	Arg
			20					25					30		
His	Pro	Ser	Thr	Asn	Ser	Leu	Leu	Arg	Glu	Gln	Ile	Ser	Leu	Tyr	Pro
		35				40						45			
Glu	Val	Lys	Gly	Glu	Ile	Ala	Arg	Lys	Asp	Glu	Lys	Leu	Leu	Ser	Phe
		50				55				60					
Leu	Lys	Asp	Val	Tyr	Val	Asp	Ser	Lys	Asp	Pro	Val	Ser	Ser	Leu	Gln
65				70					75					80	
Val	Lys	Ala	Ala	Glu	Thr	Cys	Gln	Glu	Pro	Lys	Glu	Phe	Arg	Leu	Pro
			85					90					95		
Lys	Asp	His	His	Phe	Asp	Met	Ile	Asn	Ile	Lys	Ser	Ile	Pro	Lys	Gly
		100						105					110		
Lys	Ile	Ser	Ile	Val	Glu	Ala	Leu	Thr	Leu	Leu	Asn	Asn	His	Lys	Leu
		115					120					125			
Phe	Pro	Glu	Thr	Trp	Thr	Ala	Glu	Lys	Ile	Met	Gln	Glu	Tyr	Gln	Leu
		130				135					140				
Glu	Gln	Lys	Asp	Val	Asn	Ser	Leu	Leu	Lys	Tyr	Phe	Val	Thr	Phe	Glu
145				150					155					160	
Val	Glu	Ile	Phe	Pro	Pro	Glu	Asp	Lys	Lys	Ala	Ile	Arg	Ser	Lys	
			165					170					175		

<210> 6315  
<211> 378  
<212> DNA  
<213> Homo sapiens

<400> 6315  
caagaatcca ttgaagccag caagactgca ctttgcctg aaagatttgt acccctaagt  
60  
gctcaaaaca gaaaacttgt ggaggccata aaacaaggtc acattcctga gtcccaggag  
120  
tatgtaaaat ataaatatgc aatggatgaa gctgatgaaa aaggatgggt tccattgcat  
180  
gaagctgttg ttcaacccat tcaacaaata cttgagattg ttctggatgc atcctataag  
240  
acactctggg aattcaagac ctgtgatgga gaaacaccct tgactttggc agtcaaagct  
300  
ggctctgttg aaaatgtaag aactttatta gaaaagggag tgtggcccaa cacaaaaaat  
360  
gataaaggag agaccccc  
378

<210> 6316  
<211> 126  
<212> PRT  
<213> Homo sapiens

<400> 6316  
Gln Glu Ser Ile Glu Ala Ser Lys Thr Ala Leu Cys Pro Glu Arg Phe  
1 5 10 15  
Val Pro Leu Ser Ala Gln Asn Arg Lys Leu Val Glu Ala Ile Lys Gln  
20 25 30  
Gly His Ile Pro Glu Leu Gln Glu Tyr Val Lys Tyr Lys Tyr Ala Met  
35 40 45  
Asp Glu Ala Asp Glu Lys Gly Trp Phe Pro Leu His Glu Ala Val Val  
50 55 60  
Gln Pro Ile Gln Gln Ile Leu Glu Ile Val Leu Asp Ala Ser Tyr Lys  
65 70 75 80  
Thr Leu Trp Glu Phe Lys Thr Cys Asp Gly Glu Thr Pro Leu Thr Leu  
85 90 95  
Ala Val Lys Ala Gly Leu Val Glu Asn Val Arg Thr Leu Leu Glu Lys  
100 105 110  
Gly Val Trp Pro Asn Thr Lys Asn Asp Lys Gly Glu Thr Pro  
115 120 125

<210> 6317  
<211> 1201  
<212> DNA  
<213> Homo sapiens

<400> 6317  
nngggccag aactacaact ctgcagcgaa agatagagat gcccttgaaa atgtgtcaca  
60  
ttcttaagat gtcttgccga agtagcaaga gcggaggggtg actgtgtgag caggagcgag  
120

agggcgccag ctectgctgg ggaggttctt actgcgcgcc ccacctgtg caagaatgtc  
 180  
 aggccttagg gcagctgcc taggccccag gggcatcagg actctgcctc tgaaccagag  
 240  
 ctgctttccc gactaacttc aatctggaga gatggtaagt tatctaaccg gctcttcttt  
 300  
 tggcgagact gctctttctc cttaatcaga gcccccatg ccctttgcag ctgagagtcg  
 360  
 tcttcctcag cgccaggcac cctgtgatcc actttcttcg tattcttttc tttggctctg  
 420  
 ggtgcagttc ctaggcgagt ccataaatta cctgatttct tctcccgagt atcggcgtag  
 480  
 aggcctttac tatctgcctt gggaaacacct agcctactat gcacatcaga agagggctct  
 540  
 ctccgaacga cggggttact actaaaagcc ttttccggag aatgtgtctt ttttcctaac  
 600  
 cgctggcgta tatctgattt agtactgctg actggtggcc gtggacggga gtgctgacgt  
 660  
 ttctcatcta atagatgtcg gacatctgca aatttctcag gtggtaattt gttaccaatt  
 720  
 cgggttttga tattgcttga agatacacta tctgccctca tggagtctct aatatttttc  
 780  
 aactgagatt ccactctgct agcatacata gtcattttca tgcttttctt tgggtgaaggc  
 840  
 gtggaaatca ttttcagttc tagatcatag tccatttcat ctgagctga gctgctggca  
 900  
 ctggatcgct tagacgcgtt ccgctcccg ggcgtcttga gagccgggag ctctctgtgg  
 960  
 tactctacca ccactctgct atctgcatcc atgtcttggg tttcttcttc ctcttctctt  
 1020  
 tctctctctt cctctcttct ctctcttca atgggttctt cgggaacatt cactagccca  
 1080  
 gaatgtcgat gtttatacga cgtcaagcca acgtcatccc caatcagggc tctcttcttg  
 1140  
 atcacgtccc gctgaatacg acgggaatga tatcttctgct tccatgaatt gctaagaatt  
 1200  
 c  
 1201

<210> 6318

<211> 94

<212> PRT

<213> Homo sapiens

<400> 6318

Ser	Ile	Ser	Ser	Glu	Ser	Glu	Leu	Leu	Ala	Leu	Asp	Arg	Leu	Asp	Ala
1			5						10					15	
Leu	Arg	Ser	Arg	Gly	Cys	Leu	Arg	Ala	Gly	Ser	Ser	Ser	Trp	Tyr	Ser
			20					25					30		
Thr	Thr	Thr	Leu	Ser	Ser	Ala	Ser	Met	Ser	Trp	Ser	Ser	Ser	Ser	Ser
			35				40					45			
Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Met	Gly	Ser	Ser
			50			55					60				
Gly	Thr	Phe	Thr	Ser	Pro	Glu	Cys	Arg	Cys	Leu	Tyr	Asp	Val	Lys	Pro



```

65          70          75          80
Thr Ser Ser Pro Ile Arg Ala Leu Phe Leu Ile Thr Ser Arg
      85          90

<210> 6319
<211> 345
<212> DNA
<213> Homo sapiens

<400> 6319
gcgcgcgcgc tgtggggccgc ctccgcagcc ggccacctgg acgtggtgcg gagcctgctg
60
cgccgcgggg cctcggtgaa ccgcaccacg cgcaccaact ccacgcctct cgcgcgccgc
120
tgcttcgacg gccacctgga ggtggtgctg tacctggtcg gcgagcacca ggccgacctg
180
gaggtggcca accggcacgg ccacacgtgc ctcatgatct cgtgtactaa gggccaccgt
240
gagatcgccc gctacctgct ggagcagggc gcccagggtga accggcgcgag cgccaagggc
300
aacacggccc tgcgatgactg cgccgagtcg ggcagcctgg agatc
345

<210> 6320
<211> 115
<212> PRT
<213> Homo sapiens

<400> 6320
Ala Pro Pro Leu Trp Ala Ala Ser Ala Ala Gly His Leu Asp Val Val
1      5      10
Arg Ser Leu Leu Arg Arg Gly Ala Ser Val Asn Arg Thr Thr Arg Thr
20      25      30
Asn Ser Thr Pro Leu Arg Ala Ala Cys Phe Asp Gly His Leu Glu Val
35      40      45
Val Arg Tyr Leu Val Gly Glu His Gln Ala Asp Leu Glu Val Ala Asn
50      55      60
Arg His Gly His Thr Cys Leu Met Ile Ser Cys Tyr Lys Gly His Arg
65      70      75      80
Glu Ile Ala Arg Tyr Leu Leu Glu Gln Gly Ala Gln Val Asn Arg Arg
85      90      95
Ser Ala Lys Gly Asn Thr Ala Leu His Asp Cys Ala Glu Ser Gly Ser
100      105      110

Leu Glu Ile
115

<210> 6321
<211> 1442
<212> DNA
<213> Homo sapiens

<400> 6321
aagcctttgcc agagtgggtt ggctacagtc agctcttcta caggaagtgg cattttccac
60

```

ttgtgaaacg gtaggtcatt ccctgectca tgcagaactc agccctgtgg agctccacca  
120  
cctggccccag gccctgccca catgcaacct cccgggggtgg ccctcaatga cctgcacgtc  
180  
ccttcactct aaggaacctt gagttacagt ggcccttaagg acatgtgtat ttagaagcct  
240  
ttgtgtacaa actagctctg tgcgctctca gtttaccgtc ctcacacttt attgttagct  
300  
gttctttaag tttctcacac attattggca attatgtaaa aatcaagaac ctctataaaa  
360  
caacctggct tccaggtgg aattccgcat acagccaaaa ctggattcca gtgtggccag  
420  
acaacgcccc tgtcccaatt taagagtcgc tgcctccacc accatccgga gtggcctctc  
480  
tgtcagtgtg tgatgtggcc agggcagtggt ccacctgaac ttcctcctca tcggactgaa  
540  
caacggggga cccccaccc tcaactgatgt cccgggtggc cgagtcggtg caggtggagg  
600  
aagaagaagg tggtctggct cttaattctg agggatttgg aacctggagg gtaatctcat  
660  
tctgacaggt actggattca ggccttaagg cgggggacag cacagtgttc tcttctcctc  
720  
cagagttcag gaagacgtcc agggcctcct ggtccgatat gtccatcagg tccatctgct  
780  
ccagcatgtc cacgttcaact tccatggatg acatgctgcc tatgggtctt cgccgctctg  
840  
caactctcag gtagccagtg gacaggtaact gctgctccat gtccctgctgg aaggcttcct  
900  
caaaaaactt ctgccgtccc ttcagcttca tttgctgggt gtgctccatt tccaggacct  
960  
tctggggcgtg ctctgcatct agttcagagg gatccctctg actattttctg gtgagtcctg  
1020  
gagatgacat ggatgtgaga cctgaatgag tgaacagaag ctcagtgtctg gtcaagtga  
1080  
gcctccagtt accaggcagc tgcctcacg tgcatcttct gggatgtaga acaaaggaa  
1140  
tgaggctgaa gccagaagca ggtttttcca aagaaattgt agtaagccta ttagttttt  
1200  
gctgatggct taagcagata tacattggaa tctactgcct ctataaaagc aaaatgcaag  
1260  
ctctcagggg ctctagtgtg caaagatgta tgcaccggtc tgggaccata ccaaagcag  
1320  
ctcaaaatgg aggggaggga aggctgaaaa taactaaatc caacagaatt tgtcatctag  
1380  
gtacaaagat gcttttagtaa cacagcaaaa gagagatgaa atcttgctgt ttgaaagtag  
1440  
ta  
1442

&lt;210&gt; 6322

&lt;211&gt; 196

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

<400> 6322  
 Met Ser Ser Pro Gly Leu Thr Glu Asn Ser Gln Arg Asp Pro Ser Glu  
 1 5 10 15  
 Leu Asp Ala Glu His Ala Gln Lys Val Leu Glu Met Glu His Thr Gln  
 20 25 30  
 Gln Met Lys Leu Lys Glu Arg Gln Lys Phe Phe Glu Glu Ala Phe Gln  
 35 40 45  
 Gln Asp Met Glu Gln Gln Tyr Leu Ser Thr Gly Tyr Leu Gln Ile Ala  
 50 55 60  
 Glu Arg Arg Glu Pro Ile Gly Ser Met Ser Ser Met Glu Val Asn Val  
 65 70 75 80  
 Asp Met Leu Glu Gln Met Asp Leu Met Asp Ile Ser Asp Gln Glu Ala  
 85 90 95  
 Leu Asp Val Phe Leu Asn Ser Gly Gly Glu Glu Asn Thr Val Leu Ser  
 100 105 110  
 Pro Ala Leu Gly Pro Glu Ser Ser Thr Cys Gln Asn Glu Ile Thr Leu  
 115 120 125  
 Gln Val Pro Asn Pro Ser Glu Leu Arg Ala Lys Pro Pro Ser Ser Ser  
 130 135 140  
 Ser Thr Cys Thr Asp Ser Ala Thr Arg Asp Ile Ser Glu Gly Gly Glu  
 145 150 155 160  
 Ser Pro Val Val Gln Ser Asp Glu Glu Glu Val Gln Val Asp Thr Ala  
 165 170 175  
 Leu Ala Thr Ser His Thr Asp Arg Glu Ala Thr Pro Asp Gly Gly Glu  
 180 185 190  
 Asp Ser Asp Ser  
 195

**What is claimed is:**

1. An isolated nucleic acid molecule encoding a polypeptide comprising an amino acid sequence that is at least 85% identical to a polypeptide including an amino acid sequence selected from the group consisting of SEQ ID NO:2 $n$ , wherein  $n$  is any integer 1-3161, or the complement thereof.
2. The isolated nucleic acid molecule of claim 1, said molecule hybridizing under stringent conditions to a nucleic acid sequence complementary to a nucleic acid molecule comprising the sequence of nucleotides selected from the group consisting of SEQ ID NO:2 $n$ , wherein  $n$  is any integer 1-3161, or the complement thereof.
3. The isolated nucleic acid molecule of claim 1, said molecule encoding a polypeptide comprising the amino acid sequence selected from the group consisting of SEQ ID NO: 2 $n$ , wherein  $n$  is any integer 1-3161, or an amino acid sequence comprising one or more conservative substitutions in the amino acid sequence selected from the group consisting of SEQ ID NO: 2 $n$ .
4. The isolated nucleic acid molecule of claim 1, wherein said molecule encodes a polypeptide comprising the amino acid sequence selected from the group consisting of SEQ ID NO: 2 $n$ , wherein  $n$  is any integer 1-3161.
5. The isolated nucleic acid molecule of claim 1, wherein said molecule comprises the sequence of nucleotides selected from the group consisting of SEQ ID NO:2 $n$ -1, wherein  $n$  is any integer 1-3161, or the complement thereof.
6. An oligonucleotide less than 100 nucleotides in length and comprising at least 5 contiguous nucleotides selected from the group consisting of SEQ ID NO:2 $n$ -1, wherein  $n$  is any integer 1-3161, or the complement thereof.
7. A vector comprising the nucleic acid molecule of claim 1.

8. The vector of claim 7, wherein said vector is an expression vector.
9. A host cell comprising the isolated nucleic acid molecule of claim 1.
10. A substantially purified polypeptide comprising an amino acid sequence at least 80% identical to a polypeptide comprising the amino acid sequence selected from the group consisting of SEQ ID NO: 2*n*, wherein *n* is any integer 1-3161.
11. The polypeptide of claim 10, wherein said polypeptide comprises the amino acid sequence selected from the group consisting of SEQ ID NO: 2*n*, wherein *n* is any integer 1-3161.
12. An antibody that selectively binds to the polypeptide of claim 10.
13. A pharmaceutical composition comprising a therapeutically or prophylactically effective amount of a therapeutic selected from the group consisting of:
  - a) the nucleic acid of claim 1;
  - b) the polypeptide of claim 10; and
  - c) the antibody of claim 12;and a pharmaceutically acceptable carrier.
14. A kit comprising in one or more containers, a therapeutically or prophylactically effective amount of the pharmaceutical composition of claim 13.
15. A method of producing the polypeptide of claim 10, said method comprising culturing the host cell of claim 9 under conditions in which the nucleic acid molecule is expressed.
16. A method of detecting the presence of the polypeptide of claim 10 in a sample, comprising contacting the sample with a compound that selectively binds to said polypeptide under conditions allowing the formation of a complex between said polypeptide and said

compound, and detecting said complex, if present, thereby identifying said polypeptide in said sample.

17. A method of detecting the presence of a nucleic acid molecule of claim 1 in a sample, the method comprising contacting the sample with a nucleic acid probe or primer that selectively binds to the nucleic acid molecule and determining whether the nucleic acid probe or primer bound to the nucleic acid molecule of claim 1 is present in the sample.

18. A method for modulating the activity of the polypeptide of claim 10, the method comprising contacting a cell sample comprising the polypeptide of claim 10 with a compound that binds to said polypeptide in an amount sufficient to modulate the activity of the polypeptide.

19. The use of a therapeutic in the manufacture of a medicament for treating a syndrome associated with a ORFX-associated disorder, wherein said therapeutic is selected from the group consisting of:

- a) the nucleic acid of claim 1;
- b) the polypeptide of claim 10; and
- c) the antibody of claim 12.

20. A method for screening for a modulator of activity or of latency or predisposition to an ORFX-associated disorder, said method comprising:

- a) contacting a test compound with the polypeptide of claim 10; and
- b) determining if said test compound binds to said polypeptide,

wherein binding of said test compound to said polypeptide indicates the test compound is a modulator of activity or of latency or predisposition to an ORFX-associated disorder.

21. A method for screening for a modulator of activity or of latency or predisposition to an ORFX-associated disorder, said method comprising:

- a) administering a test compound to a test subject at an increased risk ORFX-associated disorder, wherein said test subject recombinantly expresses a polypeptide encoded by the nucleotide of claim 1;

- b) measuring expression the activity of said protein in said test subject;
- c) measuring the activity of said protein in a control subject that recombinantly expresses said protein and is not at increased risk for an ORFX-associated disorder; and
- d) comparing expression of said protein in said test subject and said control subject, wherein a change in the activity of said protein in said test subject relative to said control subject indicates the test compound is a modulator or of latency of predisposition to an ORFX-associated disorder.

22. The method of claim 20, wherein said test animal is a recombinant test animal that expresses a test protein transgene or expresses said transgene under the control of a promoter at an increased level relative to a wild-type test animal, and wherein said promoter is not the native gene promoter of said transgene.

23. A method for determining the presence of or predisposition to a disease associated with altered levels of a polypeptide of claim 11 in a subject, the method comprising:

- a) measuring the amount of the polypeptide in a sample from said subject; and
- b) comparing the amount of said polypeptide in step (a) to the amount of the polypeptide present in a control sample,

wherein an alteration in the level of the polypeptide in step (a) as compared to the control sample indicates the presence of or predisposition to a disease in said subject.

24. The method of claim 23, wherein said subject is a human.

25. A method for determining the presence of or predisposition to a disease associated with altered levels the nucleic acid molecule of claim 1 in a subject, the method comprising:

- a) measuring the amount of the nucleic acid in a sample from the mammalian subject; and
- b) comparing the amount of said nucleic acid in step (a) to the amount of the nucleic acid present in a control sample,

wherein an alteration in the level of the nucleic acid in step (a) as compared to the control sample indicates the presence of or predisposition to said disease in said subject.

26. The method of claim 25, wherein said subject is a human.

27. A method of treating or preventing a pathological condition associated with an ORFX-associated disorder in a subject, the method comprising administering to said subject a polypeptide of claim 10 in an amount sufficient to alleviate or prevent said pathological condition.

28. The method of claim 27, wherein said subject is a human.

29. A method of treating or preventing a pathological condition associated with an ORFX-associated disorder in a subject, the method comprising administering to said subject a nucleic acid molecule of claim 1 in an amount sufficient to alleviate or prevent said pathological condition.

30. The method of claim 29, wherein said subject is a human.

31. A method of treating or preventing a pathological condition associated with an ORFX-associated disorder in a subject, the method comprising administering to said subject an antibody of claim 12 in an amount sufficient to alleviate or prevent said pathological condition.

32. The method of claim 31, wherein said subject is a human.